

EDUCATION, INDIA.

OCCASIONAL REPORTS

No. 16.

A Report on the use of the Mother-tongue
as the Medium of Instruction and Examination
in certain subjects for the Matriculation
Examination of the Bombay University.

BY

M. R. PARANJPE, M.A., B.Sc., POONA,

Fellow of the University of Bombay.



Government of India Publications are obtainable from the Government of India Central Publication Branch, 3, Government Place, West, Calcutta, and from the following Agents :—

EUROPE.

OFFICE OF THE HIGH COMMISSIONER FOR INDIA,
INDIA HOUSE, ALDWINCH, LONDON, W. C. 2.

And at all Booksellers.

INDIA AND CEYLON : Provincial Book Depôts.

MADRAS:—Superintendent, Government Press, Mount Road, Madras.
BOMBAY:—Superintendent, Government Printing and Stationery, Queen's Road, Bombay.
BURMA:—Library attached to the Office of the Commissioner in Burm, Karachi.
BEN:—Bengal Secretariat Book Depot, Writers' Buildings, Room No. 1, Ground Floor, Calcutta.
UNITED PROVINCES OF AGRA AND OUDH:—Superintendent of Government Press, United Provinces of Agra and Oudh, Allahabad.
PUNJAB:—Superintendent, Government Printing, Punjab, Lahore.
BURMA:—Superintendent, Government Printing, Burma, Rangoon.
CENTRAL PROVINCES AND BEHAR:—Superintendent, Government Printing, Central Provinces, Nagpur.
ASSAM:—Superintendent, Assam Secretariat Press, Shillong.
BIHAR AND ORISSA:—Superintendent, Government Printing, Bihar and Orissa, P. O. Gulzarbagh, Patna.
NORTH-WEST FRONTIER PROVINCE:—Manager, Government Printing and Stationery, Peshawar.

Thacker Spink & Co., Ltd., Calcutta and Simla.
W Newman & Co., Ltd., Calcutta.
B. K. Lahiri & Co., Calcutta.
The Indian School Supply Depot, 309, Bow Bazar Street, Calcutta.
Butterworth & Co. (India), Ltd., Calcutta.
W. C. Sayer & Sons, 15, College Square, Calcutta.
Standard Literature Company, Limited, Calcutta.
Association Press, Calcutta.
Chatterjee, Chatterjee & Co., Ltd., 13, College Square, Calcutta.
The Book Company, Calcutta.
James Murray & Co., 12, Government Place, Calcutta. (For Meteorological Publications only.)
Ray Chaudhury & Co., 68-6, Ashutosh Mukherji Road, Calcutta.
Scientific Publishing Co., 9, Taltole Lane, Calcutta.
Chatterjee & Co., 8-1, Bacharam Chatterjee Lane, Calcutta.
Standard Law Book Society, 6, Hastings Street, Calcutta.
The Hindu Library, 8, Nandlal Mullick Lane, Calcutta.
Kamala Book Depot, Ltd., 16, College Square, Calcutta.
The Pioneer Book Supply Co., 20, Shiv Narain Das Lane, Calcutta.
P. G. Sarkar & Co., 2, Shama Charan De Street, Calcutta.
Bengal Flying Club, Dum Dum Cantt.
Kall Chandra & Co., Municipal Market, Calcutta.
N. M. Roy Chowdhury & Co., 11, College Sq., Calcutta.
Grantha Mandir, Cuttack.
B. C. Basak, Esq., Proprietor, Albert Library, Dacca.
Higginbothams, Madras.
Rochouse & Sons, Madras.
G. A. Watson & Co., Publishers, George Town, Madras.
V. Varadachary & Co., Madras.
City Book Co., Madras.
Law Publishing Co., Mysore, Madras.
The Booklover's Resort, Tanjore, Tiruvandur, South India.
E. M. Gopalakrishna Kone, Pudukmandapam, Madras.
Central Book Depot, Madras.
Vijapur & Co., Vizagapatnam.
Thacker & Co., Ltd., Bombay.
D. B. Taraporevala Sons & Co., Bombay.
Ram Chandra Govind & Sons, Kalbadevi Road, Bombay.
K. M. Tripathi & Co., Booksellers, Princess Street, Kalbadevi Road, Bombay.
New and Secondhand Bookshop, Kalbadevi Road, Bombay.
J. M. Pandia & Co., Bombay.
A. H. Wheeler & Co., Allahabad, Calcutta and Bombay.
Bombay Book Depot, Girgaon, Bombay.
Bennett, Coleman & Co., Ltd., The Times of India Press, Bombay.
The Popular Book Depot, Bombay.
Lawrence & Mayo, Ltd., Bombay.
The Manager, Oriental Book Supplying Agency, 15, Shukrawar, Poona City.
Rama Krishna Bros., Opposite Bishrambag, Poona City.
S. P. Bookstall, 21, Badliwar, Poona.
The International Book Service, Poona 4
Mangaldas & Sons, Booksellers and Publishers, Bhusa Talao, Surat.
The Standard Book and Stationery Co., 32-32, Arbab Road, Peshawar.
The Students' Own-Book Depot, Dharwar.
Shri Shanbhag Karnatak Pustaka Bhandara, Miamundli, Dharwar.
The English Book Depot, Porezapore.

Frontier Book & Stationery Co., Rawalpindi.
Hosainhyoy Karimji & Sons, Karachi.
The English Bookstall, Karachi.
Pore & Co., Karachi.
Kraile & Co., Karachi.
Ram Chander & Sons, Umbala, Kasauli.
The Standard Bookstall, Quetta and Lahore.
U. P. Malhotra & Co., Quetta.
J. Roy & Sons, 48, K. & L., Edwardes Road, Rawalpindi, Murree and Lahore.
The Standard Book Depot, Lahore, Faisalabad, Multan, Dabhoi, Ambala Cantonment and Delhi.
The North India Christian Tract and Book Society, 18, Clive Road, Allahabad.
Ram Narain Lal, Katra, Allahabad.
"The Leader", Allahabad.
The Indian Army Book Depot, Dayalbagh, Agra.
The English Book Depot, Taj Road, Agra.
Gya Prasad & Sons, Agra.
Narayan & Co., Meerut Road, Cawnpore.
The Indian Army Book Depot, Jullundur City—Daryaganj, Delhi.
Manzoor, Newal Kishore Press, Lucknow.
The Upper India Publishing House, Ltd., Literature Palace, Ammudaula Park, Lucknow.
Raj Sahib M. Gulab Singh & Sons, Muss-i-Am Press, Lahore and Allahabad.
Rama Krishna & Sons, Bookellers, Anarkali, Lahore.
Students' Popular Depot, Anarkali, Lahore.
The Proprietor, Punjab Sanskrit Book Depot, Saidmitha Street, Lahore.
The Insurance Publicity Co., Ltd., Lahore.
The Punjab Religious Book Society, Lahore.
The Commercial Book Co., Lahore.
The University Book Agency, Kasbari Road, Lahore.
Manager of the Imperial Book Depot, 63, Chandney Chawk Street, Delhi.
J. M. Johns and Dro., Delhi.
Tomo Book Agency, New Delhi and Simla.
Oxford Book and Stationery Company, Uchhi, Lahore, Simla, Meerut and Calcutta.
Mohandal Dosabhai Shah, Rajkot.
Supt., American Baptist Mission Press, Rangoon.
Burns Book Club, Ltd., Rangoon.
S. C. Talukdar, Proprietor, Students & Co., Cooch Behar; The Manager, The Indian Book Shop, Benares City.
Nandlal & Bros., Chark, Benares City.
The Srivilliputtur Co-operative Trading Union, Ltd., Srivilliputtur (S. I. R.).
Raghunath Prasad & Sons, Patna City.
The Students' Importers, Patna.
K. L. Mathur & Bros., Guzri, Patna City.
Karnal Book Stores, Halkipore, Patna.
O. Banerjee & Bros., Ranchi.
M. C. Kothari, Halpura Road, Baroda.
B. Parikh & Co., Baroda.
The Hyderabad Book Depot, Chaderghat, Hyderabad (Deccan).
S. Krishnaswami & Co., Teppakulam P. O., Trichinopoly Fort.
Standard Book and Map Agency, Book-sellers and Publishers, Ballygunge.
Karnataka Publishing House, Bangalore City.
Sheema Sons, Fort, Bangalore City.
Superintendent, Bangalore Press, Lake View, Mysore Road, Bangalore City.

AGENTS IN PALESTINE:—Steinmatsky, Jerusalem.

*Agents for publications on aviation only.

CONTENTS.

	PAGE.
PREFACE	v
FOREWORD	vii
I. Introduction	1
II. Bombay University Matriculation	6
III. <i>Modus operandi</i> of the Investigation	10
IV. Analysis of Matriculation Results of 1929	15
V. How they work in schools	27
VI. Conclusion	35
APPENDIX A.—Number of students taught in English but answering in mother-tongue	39
APPENDIX B.—Vernacularisation of centres in 1932	41
APPENDIX C.—Language medium and Bi-lingualism	42
Diagram showing the extent of the use of the mother-tongue at the Bombay Matriculation, 1930	<i>Facing 9</i>
Graphs showing History and History and Geography Medians based on the Matriculation Results, 1929	" 21
Graphs showing the English Medians based on the Matriculation Results, 1929, and the absence of correlation between the extent of Vernacularisation of a centre and the weakness of the Mother- tongue group at the centre	" 22

ERRATA.

In the diagram facing page 9 the figures for Ahmedabad and Surat should be as follow:—

	Answered in Mother-tongue.	Answered in English.
-Ahmedabad	58.8	43.7
Surat	46.0	54.0

PREFACE

.. As this report is concerned only with the figures of a single year, any conclusions arrived at can scarcely be regarded as final. It is published mainly in the hope that it may serve as a basis for future investigation of a problem which is rapidly becoming a matter of the greatest importance.

F. K. CLARK.

*Educational Commissioner
with the Government of India.*

SIMLA :

.. October 1932

FOREWORD

I am indebted to the Hon'ble Justice Mirza Ali Akbar Khan, the Vice-Chancellor of the University of Bombay (1930-31), for permission to tabulate the Matriculation results and to the Rev. John McKenzie, the present Vice-Chancellor, for permission to publish the information thus obtained.

Mr. M. R. Ingle, Secretary, Bombay Teachers' Union, has been throughout this investigation a valuable co-worker and a word of thanks would be but a poor return for the help he has rendered

M. R. PARANJPE.

520, NARAYAN PETH, POONA,

31st May 1932.

A Report on the use of the Mother-tongue as the Medium of Instruction and Examination in certain subjects for the Matriculation Examination of the Bombay Presidency.

I. Introduction.

It is not the purpose of this monograph to enter into any theoretical discussion of the importance of the mother-tongue as a vehicle of knowledge in the class-room or outside. Even the staunchest advocates of the use of English for class-room instruction in Indian schools, have admitted the superiority of the mother-tongue in that respect. In the Presidency of Bombay particularly, the question has never been allowed to get into the back-ground and if during the last fifty years English has been used in schools as the medium of instruction it has been done because of the belief that the advantages of the use of English far out-weigh the disadvantages, or that the languages of the Presidency—Vernaculars—are not developed enough to be the media of instruction. In recent years, however, public opinion has rapidly changed and the Educational Departments and Universities in the different provinces in India are realising the importance of adequately responding to that change in public opinion. One has now to face and overcome the difficulties—real and imaginary—in bringing about the reform and it is intended to describe here how the University of Bombay has been doing it.*

The Department of Public Instruction in this Presidency had always favoured the use of the mother-tongue for class-room instruction and officially recommended it as early as in 1914. In response to that recommendation a number of schools introduced Vernacular text books—for second language and history particularly—up to standard V. As, however, at the Matriculation, the students were required to write their answers in English, the teaching in standards VI and VII had to be done in English only. Proposals were once or twice submitted to the Senate to allow the Matriculation candidates the option to write their answers in English or their mother-tongue, but they were thrown out, chiefly on the ground of alleged impracticability of the plan. In 1925, however, an important breach was made in this wall of opposition and the Senate adopted the resolution which allowed the candidates the option to write in English or in mother-tongue, their answers in History and Indian

* A survey of the problem of Medium of Instruction appears in Dr. Michael West's *Bi-lingualism*, published by the Bureau of Education, Government of India, as Occasional Report No. 13.—(See Appendix B.)

classical languages (Sanskrit, Pali, Arabic or Persian). Six examinations have been held since that resolution was adopted and, as can be seen from the tables given below, there has been, year after year, steady increase in the number of students taking advantage of the option allowed. Of the 333 schools registered by the University of Bombay (in 1930), 150 (or 45 per cent.) have adopted the mother-tongue as the medium of instruction and some of these 150 schools are big schools of long standing and reputation. About half the number of students in the high schools of this Presidency are thus receiving instruction in their mother-tongue up to the Matriculation standard.

A Table showing the number of students who answered their History and Sanskrit Papers in English and in their mother-tongues.†*

Year.	History.			Sanskrit.		
	Appeared.	Answered in		Appeared.	Answered in	
		English.	M. Tongue.		English.	M. Tongue.
1926 . .	8,321	6,599	1,736	3,521	2,425	1,096
1927 . .	10,000	6,796	3,213	3,391	1,811	1,580
1928 . .	11,015	6,046	4,969	3,229	1,370	1,859
1929 . .	11,180	5,163	6,012	3,262	1,092	2,170
1930 . .	12,481	4,822	7,659	3,343	956	2,387
1931 . .	13,540	4,835	8,705	3,640	955	2,685

In six years (from 1926 to 1931) the percentage of those answering their History papers in their mother-tongue has increased from 21.1 to 64.2; while that of those answering the Sanskrit paper in their mother-tongue has increased from 31.1 to 73.7. Obviously the experiment has been very popular. The examiners (strictly speaking "the moderators") also have recorded

* The number of students taking Pali or Arabic is very small. A good number of students take Persian but practically all of them (96 per cent.) prefer to write their answers in English.

† By mother-tongue is meant one of the recognised languages of the Presidency.—Marathi, Gujarati, Kannada, Sindhi, Hindi, Urdu and Portuguese.

‡ The number of students taking Sanskrit differs from that of those taking History because the first is an optional while the latter is a compulsory subject.

their opinion that the answers in the mother-tongue are more readable and more to the point. Thus—

1926 (History).—“The experiment has turned out fairly successful even in the first year of its trial. The Marathi speaking portion of the examinees was specially responsive to the concession Even cosmopolitan Bombay reported a large number of students who wrote their answers in Marathi, although the same centre was the least sensitive to the action of the new change so far as Gujarati went. The examiners in Kannada and Gujarati report more merit and greater facility for answers attempted in those languages”.

1927 (History).—“All the examiners, especially those who examined answers given in the Vernaculars, are satisfied with the progress of the candidates. The last four hundred numbers were particularly weak. We agree with the examiners in thinking that with a larger use of the Vernaculars which is gradually on the increase, such weakness will be removed as the candidates' grasp of the fundamentals of the subject will be more easy and accurate.”

1928 (History).—“All examiners agree that answers written in the Vernaculars were decidedly superior to those written in English. If separate totals in History were taken it would be possible to find exactly how many candidates obtained distinction* in History and in how many cases this was due to the use of the Vernaculars in teaching that subject. Some answers written by the students of Sangli in Marathi and others written by the students of Baroda in Gujarati were highly spoken of by the examiners, while the examiners of answers written in English have made some such general complaint: “Bad spelling, very indifferent English History is very little understood; it is learnt by rote”. These opinions speak for themselves.”

From 1929 onwards the examiners ceased making any comments in this respect, probably because they considered it an established fact that the answers in the candidates' mother-tongue were, as a rule, of better quality than those in English, and that it was superfluous to mention it.

The Sanskrit examiners did not, like the examiners in History, comment on the quality of the answers in English and the mother-tongue. A good part of the Sanskrit paper (Sanskrit grammar and translation into Sanskrit) requires to be answered in Sanskrit; English has to be used only for translation of Sanskrit passages into English and no one ever doubted that it would be an immense advantage if the candidates could translate the Sanskrit passage into their mother-tongues (which are derived from Sanskrit).

As against this popularity of the experiment among the students and this chorus of applause from the examiners, may be put down the fears expressed by some influential teachers that the

* For obtaining distinction in a subject a candidate must get 70 per cent. marks in that subject.

continued use of the mother-tongue in the class-room would adversely affect the students' knowledge of English. They contend that the practice of listening to and speaking English in History, Geography, Mathematics and Science periods supplements the direct teaching of English in the English periods and the use of the mother-tongue medium deprives the student of this valuable practice. The examiners at the B.A. Examination in 1931 for instance remark: "The tendency to write vernacularised English is wide-spread. It was conspicuous among the B.A. candidates of this year. To a certain extent this is inevitable, as the Vernaculars have begun to supplant English as media of instruction in secondary schools." It may be noted, however, that this remark represents not facts but a reflection of the examiners' fears. For the students who appeared at the B.A. in 1931 had passed their Matriculation in 1926 or 1927 when not more than 15 per cent. of the schools had accepted "Vernaculars" as the media of instruction and the later supplanting of English by the Vernaculars, in secondary schools, could not have vernacularised the English of those who had already left their schools and were attending college classes where not a word of the Vernaculars is ever heard in the class-room, probably not even in the teaching of the Vernaculars. In his recent report on Public Instruction in the Bombay Presidency (1930-31), the Director of Public Instruction remarks: "It remains to be seen whether the more extended use of the Vernacular medium of instruction will not have an adverse effect on the standard of English."*

There is an obvious fallacy in this argument that Practice leads to Perfection and less practice in speaking and hearing English must affect the students' mastery of the English language. Practice to be helpful must be the practice of the right sort. Constant practice of wrong strokes would make one a bad tennis-player, and constant practice in bad English would spoil one's English. During the History periods the teacher cannot find time to correct his students every now and then and has to tolerate all sorts of mistakes. The students are thus drilled in bad English. Secondly conscious of their inability to speak or write correct English, the students are oppressed by a sense of diffidence and this is transferred also to subjects other than English. Permitted to use their mother-tongue they feel more at home with the subject, cultivate confidence in their abilities and, it is contented, transfer that confidence to English also. The use of the mother-tongue, therefore, may actually tend to improve the students' knowledge of English.

All these opposing views contain an element of truth and it is next to impossible to give a decision which will be considered satisfactory in all places and at all times. The best that one can do is

* Many teachers hold that pupils who use the Vernacular as the medium of instruction are apt to be weaker than other students in English, owing to their fewer opportunities of using that language.—Inter-University Board's Report for the year 1931-32, Page 28, Bihar and Orissa.

to try a measure for some time, watch its effects and modify it to suit local conditions. In 1929, *i.e.*, four years after the experiment was started a stage was reached when the two groups—those writing their answers in English and those writing them in their mother-tongue—were nearly equal. Each group contained a little over 5,000 students and conclusions based on the results of such big numbers could be regarded as fairly representing the average. It was thus a year best suited for the first periodical investigation into the effects of the resolution adopted by the Senate in 1925. The *modus operandi* of the investigation will be later described in detail, but the principle of the investigation may be briefly stated here. The eleven thousand odd candidates who had appeared at the Matriculation in 1929 were sorted out into two groups—those who answered their History paper in English and those who answered it in their mother-tongue. These were further classified into sub-groups according as they had earned marks (in English and in History-Geography) from 1 to 10, 11 to 20, 21 to 30, 91 to 100, 101 to 110, etc., and frequency tables were obtained representing these four groups. As will be seen hereafter, these frequency tables offer a good and tolerably reliable indication of the quality of the group of students examined.

II. Bombay University Matriculation.

Readers of this monograph who are not familiar with the Bombay conditions may find the following information helpful in the proper appreciation of the stages in the investigation and the conclusions drawn therefrom.

The Bombay Presidency over which extends the territorial jurisdiction of the University of Bombay is a long strip, about 1,500 miles long, on the West Coast of Bombay and contains four distinct linguistic divisions—Sind, Gujarat, Maharashtra and Karnatak—speaking four languages—Sindhi, Gujarati, Marathi and Kannada. The Mahomedans of the Presidency, the majority of whom are in Sind and Gujarat, as a rule, speak the language of the Province in which they are born and are brought up, but like the Mahomedans in other parts of India they are developing strong bias for Urdu. The City of Bombay with its cosmopolitan population is again a division by itself. Besides being the meeting place of people speaking the five languages mentioned above, it harbours a number of Anglo-Indians, Englishmen domiciled in India, Indian Christians and Goans from Goa (a small province in the South-West corner of the Presidency, owned by Portugal) and thus there arise two groups whose mother-tongues are English and Portuguese. The Hindi-speaking section is not big but Hindi is, like Urdu, given a recognised place among the languages of the Presidency.

The average age of the student appearing at the Matriculation is 17. His schooling extends over 12 years, five of which are spent in a Primary school and the rest in a Secondary school where English is a compulsory subject in all the seven standards. There are about 1,030 secondary schools in the Presidency of which about 680 teach up to standard three or five, a few teach standards IV to VII, and the rest teach all the seven standards. These schools are called "Anglo-Vernacular" schools because the local Vernacular is a compulsory subject of study in these schools and it is also used as the medium of instruction in the first three standards at least. Besides these 1,030 Anglo-Vernacular schools there are about 125 schools which are called "English-teaching" schools. These latter are a combination of the Primary and the Secondary. They are intended for those whose mother-tongue is English or those who desire their children to be taught like English children. All work in these schools, from the lowest to the highest class, is done through English and a part of the staff is recruited from among the English-speaking people domiciled in India.

The University of Bombay permits students to appear at its Matriculation only from such schools as are registered by it. The number of such schools now (May 1932) is 351. Of these 351 schools 40 are in Sind, 54 in British Gujarat, 57 in Baroda, Kathiawar and other Gujarat States, 64 in Bombay city and suburbs, 106 in Maharashtra (including the Southern Maratha States) and 34 in Karnatak. Six schools in Goa are also registered by the University.

In the year 1930 that is at the time when this investigation was first taken up the number of the registered schools was 333. In a Presidency with as many as six big linguistic groups one is led to believe that the difficulties in the way of adopting the mother-tongue medium for class use would be insuperable.* As a result of the census of the two highest standards in the 333 schools, however, it was discovered that as many as 285 were such as could be described as homogeneous, about 95 per cent. (or more) of the students in each one of them having the same mother-tongue. Even in cosmopolitan Bombay, out of 58 high schools 45 came under this class. Of the remaining 48 schools 20 were bilingual schools, situated in districts where two divisions meet and in these schools the students as well as teachers speak either of the two languages with the same ease. There are only about 30 schools—besides those attended by English children—which must use the English medium.

Further analysis gave the following figures:—

Marathi—

Total No. of schools	99
No. using mother-tongue medium	74 (75%)
Total No. of pupils in Matric classes	5,700
No. taught through mother-tongue	4,000 (70%)

Gujarati—

Total No. of schools	127
No. using mother-tongue medium	59 (46%)
Total No. of pupils in Matric classes	5,500
No. taught through mother-tongue	2,600 (47%)

Kannada—

Total No. of schools	19
No. using mother-tongue medium	4 (21%)
Total No. of pupils in Matric classes	920
No. taught through mother-tongue	120 (13%)

Sindhi—

Total No. of schools	20
No. using mother-tongue	12 (60%)
Total No. of pupils in Matric classes	1,100
No. taught through mother-tongue	500 (45%)

Urdu—

Total No. of schools	3
No. using mother-tongue medium	nil
Total No. of boys in Matric classes	350
No. taught through mother-tongue	nil

Hindi—

Total No. of schools	2
No. using mother-tongue medium	1
Total No. of pupils in Matric classes	32
No. taught through mother-tongue	11

* "The opinion here is that we cannot think of any advance in the direction until and unless the conflicting Vernaculars already in the field are reduced to one acknowledged medium"—Principal, St. Andrews College, Gorakhpur. Inter-University Boards' Report for 1931-32, page 23.

No data is available about the Portuguese schools. It seems there are no schools which can be regarded as Portuguese, not even those in Goa.

The Matriculation Examination is held once in a year, in April, and the candidates have to pass in the following five heads:—

Head.	No. of papers.	Total marks.	Minimum for pass.
English (Text and General)	2	200	80
Additional Language (Classical or Modern)	1	100	35
History and Geography	2	150	52
Mathematics	3	150	52
Elementary Science	1	75	25

Candidates must pass in all the five heads at one and the same examination but—


“An unsuccessful candidate who has obtained fifty per cent. of the total marks in any subject may, at his option, be excused from appearing in that subject at a subsequent examination and will be declared to have passed the whole of the examination when he has passed in all the subjects of the examination.”


The following table gives the Matriculation* results for the ten years from 1921 to 1930:—

Year.	Number appeared.	Percent increase in five years.	Number successful.	Percentage of passes.	Average for five years.
1921	6,306	39.5	2,802	44	40.8
1922	6,017		3,016	52	
1923	7,587		4,322	57	
1924	8,305		4,362	52	
1925	8,024		3,912	44	
1926	8,590	51.4	3,408	30	40.0
1927	10,207		4,121	40	
1928	11,552		4,165	31	
1929	12,044		6,780	56	
1930	13,011		4,391	34	

* During these ten years the University held what was called the School Leaving Examination and the above figures strictly speaking give the results of that examination. Among those who passed the School Leaving Examination those who passed in the five heads described above, at one and the same examination (including also those who passed under the exemption clause), got the Matriculation certificate. Their numbers were only a little less than those given in the table.

<u>CENTRE</u>		<u>TOTAL</u> <u>APPEARED</u>
BOMBAY	31.3 68.7	3011
POONA	78.3 21.7	2278
AHMEDABAD	55.3 44.7	1311
BARODA	77.6 22.4	1223
RAJKOT	17.6 82.4	408
BHAVNAGAR	69.4 30.6	327
SURAT	36.0 64.0	540
SANGLI	73.1 26.9	364
KOLHAPUR	56.5 43.5	745
DHARWAR	27.7 72.3	966
NASIK	85.3 14.7	398
KARACHI	38.7 61.3	902
HYDERABAD	51.6 48.4	368
AVERAGE	53.5 46.5	12841

 THOSE WHO ANSWERED THEIR HISTORY PAPERS
IN THEIR MOTHER TONGUE.

 THOSE WHO ANSWERED THEIR HISTORY PAPERS
IN ENGLISH.*

*THESE INCLUDE ALSO STUDENTS WHOSE MOTHER-
TONGUE IS ENGLISH.

The Examination is held at present at 15 centres. In 1929 it was held at thirteen centres. The diagram facing page 9 gives the proportion of the two groups of candidates—those writing their answers in their mother-tongues and those writing in English—at different centres in 1930.

It is important to note in this connexion that the University of Bombay keeps no record of schools which have taken to teaching through the mother-tongue; it has placed no restriction on the students that they shall use in the examination the same language medium for their answers, in which they receive instruction in their schools. As will be seen later it is not uncommon that the students receiving instruction in English choose to write their answers in Marathi, Gujarati, Kannada or Sindhi. In their applications for permission to appear at the Examination the students state the language in which they would write their answers and, as a rule, they stick to it; but there is nothing to prevent them from changing their mind at the last moment. It will be seen later that these facts have an important bearing on the conclusions to be drawn from the investigation.

N.B.—Of the thirteen centres where the Matriculation Examination was held in 1929,

Hyderabad and Karachi are mostly Sindhi.

Ahmedabad, Surat, Rajkot and Bhavanagar are mostly Gujarati.

Baroda and Bombay are bilingual, mostly Gujarati-Marathi.

Poona, Nasik and Sangli are mostly Marathi.

Kolhapur is bilingual, mostly Marathi-Kannada.

Dharwar is mostly Kannada.

Of the two new centres added since then—

Belgaum is bilingual, mostly Marathi-Kannada.

Shikarpur is mostly Sindhi.

III. Modus Operandi of the Investigation.

For the convenience of the readers not initiated into the methods of manipulation of statistical data we shall first consider the results of one centre only and then extend the principle to all centres severally and collectively.

Below are tabulated the *History and Geography* marks of the students who appeared in 1929 at the Ahmedabad Centre (Total No.—1205)*. Minimum required for pass—52; for distinction—105.

Range of Marks.	No. of students who answered in	
	Mother-tongue.†	English.
1 to 30	6	22
31 to 40	27	30
41 to 50	38	84
51 to 60	178	190
61 to 70	240	148
71 to 80	155	44
81 to 90	29	9
91 to 100	5	...
	<hr/>	<hr/>
TOTAL	678	527
	<hr/>	<hr/>
Median	63.7	56.7
	<hr/>	<hr/>

Certain aspects of the above table will be obvious even to a casual observer. The Gujarati-answers form the bigger group but in this bigger group the number of bad answers—those getting less than 20 per cent. are only 6, while in the other group they are 22. Similarly among the Gujarati-answers the number of failures is 71, while among the English-answers they are 136. Among the Gujarati-answers again those that got more than 55 per cent. marks are 34, while among the English-answers they are only 9. It is therefore impossible to avoid the conclusion that in the subject of History, the Gujarati-answers formed the better group of the two. It is not however always so easy to distinguish between the two groups and it is necessary to fix on some other method which can be used in all cases.

The following are the methods usually adopted:—

- (1) Often the table has a particularly big group and if a graph be drawn with the marks along the X-axis and the num-

* It will be noticed that this number does not agree with the number given in the diagram facing page 9. There it is the number of those who appeared in 1930. Here it is the number of those who appeared in 1929.

† Gujarati mostly.

ber of students along the Y-axis, the graph presents a well-developed apex. The position of the apex serves to distinguish the group. In the above table the apex is not so marked; nor will it be well marked in the tables for other centres and therefore this method is not well suited to our requirements.

- (2) Another method is to calculate the average for the group, by taking the sum of the marks earned by the students and dividing that sum by the number of students. This can always be obtained with great accuracy but it involves long calculations and cannot be accepted in an investigation where the number of students concerned is a few thousand.
- (3) The third method is to suppose that the students are arranged in the order of marks earned by them and then divided into two *equal* groups. The position of the dividing line gives a good indication of the quality of the group. Supposing the students have increasing marks from 0 to 100 as we move from left to right, the dividing line will tend to move to the right or to the left according as we are dealing with a group of good or bad students. This dividing line is called the median of the table. It can be found with ease and therefore the method of obtaining the median is used in this investigation.

In the table on page 10 the medians can be thus calculated:—

Gujarati-answers.—Total No. of these is 678; half of 678 is 339. The total of first four sub-groups is $6 + 27 + 38 + 178 = 249$. Therefore the median is beyond 60-marks range, but not beyond 70-marks range. In the range 61 to 70 there are 240 answers; supposing they are evenly distributed in this range the position of the median can be obtained by solving $\frac{(339 - 249)}{240} \times 10$; that gives 3.7.

240

Therefore the median is at 63.7 (60 + 3.7) marks.

English-answers.—Calculated in the same way the median for English-answers is found to be at 56.7 marks.

As the minimum required for a pass in History and Geography is 52, the positions of the two medians shows that the one for Gujarati-answers is more to the right and that these answers represent the better group of the two.

The table on page 10 is for History and Geography-answers at the Ahmedabad centre. While the University allows students the option to write the History-answers in their mother-tongue, it requires that the Geography answers shall be in English only. An obvious suggestion would be that if we obtain corresponding medians for History only, the Gujarati-answers may show them-

selves to be a still better group. The table below gives this information:—

AHMEDABAD CENTRE—HISTORY MARKS.

(Out of 75.)

Total No. of Answers—741*.

Range of Marks.	No. of students who answered in	
	Mother-tongue.	English.
0 to 9	1	7
10 to 19	12	48
20 to 29	91	140
30 to 39	181	131
40 to 49	102	22
50 to 59	3	...
	<hr/>	<hr/>
TOTAL	390	351
	<hr/>	<hr/>
Median	34.0	27.6

History and Geography together carry 150 marks (History 75; Geography 75). To make the above medians comparable with those obtained on page 10 for History and Geography, they have to be doubled.

For Ahmedabad Centre.

Subject.	Medians.		Difference.
	Gujarati answers.	English answers	
History only	69 (34 × 2)	55.2 (27.6 × 2)	12.8
History and Geography	63.7	50.7	7.0

While the English-answers retained their position and even improved it slightly in the combined head (History-Geography) the Gujarati-answers lost a good deal of ground owing to the students being forced to answer the Geography paper in English.

From the foregoing study of the marks of the students at the Ahmedabad Centre in 1929 we can draw the following conclusions:—

- (1) Those who answered the History paper in mother-tongue did, as a rule, fare better in the examination than those who answered the paper in English.
- (2) The compulsion to answer the Geography paper in English only, proved a serious handicap to those who had chosen to answer the History paper in the mother-tongue inas-

* This number is smaller than the one given on page 10. There the number contains those who had appeared for Matriculation as well as those who had appeared for the School Leaving Examination. Here it is the former group only. History marks of the latter group were not available in the University office when this investigation was undertaken in May 1930.

much as they lost a good deal of the advantage they had in History.

N.B.—It may be noted that in preparing the two tables for the Ahmedabad Centre, in one case the sub-groups taken are: 1 to 10, 11 to 20, 21 to 30, etc.; while in the other case they are 0 to 9, 10 to 19, 20 to 29, etc. The second is the usual method but the minimum for pass in English is 80 and it was thought it would be an advantage to have the groups ending in 10, 20, 30, etc. But this sub-division is very inconvenient and was given up for the usual one when tabulating history marks.

The purpose of this investigation is two-fold: (1) to find if writing answers in one's mother-tongue gives the marked advantage which the examiners in History repeatedly said, in 1926-28, it did; and (2) to find out if this process of vernacularisation which must necessarily lead to the increasing use of the mother-tongue medium in class-room instruction has any adverse effect on the students' knowledge of English. We have seen above how the frequency tables and the values of medians obtained therefrom can be used to obtain a reply to the first. It will be seen that the same process will help us to obtain a reply for the second, thus:—

AHMEDABAD CENTRE—ENGLISH MARKS.

(Out of 200.)

Total No. of answers—1,265.*

Minimum for pass—80; For distinction—140.

Range of Marks	No. of students who answered their History paper in	
	Mother-tongue,†	English.
1 to 50	9	2
51 to 60	24	13
61 to 70	75	35
71 to 80	223	103
81 to 90	256	218
91 to 100	81	145
101 to 110	17	51
111 to 120	2	9
121 to 130 . . . . .	...	2
131 to 140 . . . . .	...	...
	<hr/>	<hr/>
TOTAL	637	578
	<hr/>	<hr/>
Median	80.4	86.2

* This number is a little bigger than that for History and Geography on account of the comparatively larger number of exemptions earned in History and Geography.

† Mostly Gujarati.

A casual examination of the table would show that the Mother-tongue group (*i.e.*, those who answered their History paper in Gujarati) is the weaker group so far as English is concerned. That group has 9 answers which earned less than 25 per cent. marks while the other group has only 2; and it has only 19 answers with more than 50 per cent. marks as against 62 in the other. The median value points in the same direction.

It seems, therefore, that the increasing use of the mother-tongue in the class-room tends to weaken the students' mastery over English.

Let us, however, suspend our judgment until we have studied all centres as we studied the centre at Ahmedabad. The discussion in this chapter is only to acquaint the reader with the *modus operandi* of the investigation. It will be seen later that one has to consider some factors other than the medians of frequency tables before one can pronounce one's opinion with any certainty.

IV. Analysis of Matriculation Results of 1929.

Hereafter are given six sets of frequency tables as shown below:—

- (1) History and Geography marks of those who answered the History paper in their mother-tongue.
- (2) History and Geography marks of those who answered the History paper in English.
- (3) History marks of those who answered that paper in their mother-tongue.
- (4) History marks of those who answered that paper in English.
- (5) English marks of those who answered the History paper in their mother-tongue.
- (6) English marks of those who answered the History paper in English.

As has been stated already they are prepared from the Matriculation results of the year 1929.* Tables 1, 2, 5, 6 cover Nos. 1 to 11,114 and Tables 3 and 4 cover Nos. 1 to 7,036. History (only) marks of Nos. 7,037 to 11,114 were not available in the office in May 1930 when this investigation was taken up.

It will be advisable to carefully study the tables for all centres—severally and collectively—and test the first conclusions by a still more careful scrutiny before reading the discussion on pages 22 to 26. Some points which do not appear in the discussion may in that case suggest themselves to the reader.

* The total numbers in the tables hereafter differ a little from those given in the table on page 2. In the year 1929 students appeared for (1) the Matriculation Examination, (2) the Matriculation and the School-Leaving Examination, (3) the School-Leaving Examination, and (4) some subjects only. The table on page 2 takes count of them all. The tables hereafter take count of the first two groups only. The last two groups formed a small number not worth considering.

MATRICULATION EXAMINATION—1929—Nos. 1 to 11,114.

History and Geography marks of those who answered the History paper in their mother-tongue.

Range of Marks.	Bombay.	Poona.	Ahmedabad.	Baroda.	Rajkot.	Bhavnagar.	Gurat.	Sangli.	Kolhapur.	Dharwar.	Nasik.	Karachi.	Hyderabad.	Total.	Range of Marks.
1 to 30 . . .	12	17	6	9	4	8	3	2	2	..	1	1	1	59	1 to 30
31 to 40 . . .	12	19	27	0	5	13	1	3	7	3	3	12	7	151	31 to 40
41 to 50 . . .	42	146	38	37	3	28	9	18	13	10	18	25	14	401	41 to 50
51 to 60 . . .	199	400	178	177	10	71	19	96	93	55	75	111	82	1,080	51 to 60
61 to 70 . . .	285	485	240	233	20	67	62	89	150	93	70	88	14	1,032	61 to 70
71 to 80 . . .	191	270	155	172	19	34	61	24	65	20	37	29	11	907	71 to 80
81 to 90 . . .	53	89	29	50	3	3	12	3	18	3	1	3	1	208	81 to 90
91 to 100 . . .	4	15	5	5	..	..	..	1	..	..	1	..	..	31	91 to 100
101 to 110 . . .	1	3	..	..	..	..	..	..	..	..	..	..	..	4	101 to 110
111 to 120 . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	111 to 120
Total	799	1,561	678	682	73	227	200	233	348	193	206	289	100	5,532	Total
Median . . .	64.7	61.6	67.7	65.1	65.0	58.7	65.0	59.7	63.9	63.0	60.8	58.7	57	62.3	Median

MATRICULATION EXAMINATION—1929—Nos. 1 to 11,114.

History and Geography marks of those who answered the History paper in English.

Range of Marks.	Bombay.	Poona.	Ahmedabad.	Baroda.	Rajkot.	Bhavnagar.	Gurat.	Sangli.	Kolhapur.	Dharwar.	Nasik.	Karachi.	Hyderabad.	Total.	Range of Marks.
1 to 30	21	3	22	1	10	...	...	...	1	6	...	2	1	67	1 to 30
31 to 40	65	25	30	4	4	2	3	1	11	11	2	15	4	177	31 to 40
41 to 50	103	51	94	15	36	5	12	8	19	22	3	27	13	458	41 to 50
51 to 60	652	163	100	51	100	36	69	28	87	109	12	132	30	1,734	51 to 60
61 to 70	491	115	148	62	123	36	88	31	80	202	10	165	70	1,640	61 to 70
71 to 80	253	50	44	24	33	5	34	5	27	93	3	69	20	660	71 to 80
81 to 90	50	9	9	5	4	1	7	...	3	12	...	13	2	121	81 to 90
91 to 100	14	2	...	1	...	...	1	1	...	4	...	1	...	24	91 to 100
101 to 110 . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	101 to 110
111 to 120	1	...	...	...	...	...	...	...	...	...	...	...	...	1	111 to 120
Total	1,716	418	527	163	329	85	211	74	237	519	30	454	149	4,892	Total
Median	59.3	53.0	55.7	61.7	60.4	59.8	62.7	60.0	60.0	62.5	58.3	62.2	62.5	60.0	Median

MATRICULATION RESULTS—1929—Nos. 1 to 7,036.

History marks of those who answered that paper in their mother-tongue.

Range of Marks.	Bombay.	Poona.	Ahmedabad.	Baroda.	Rajkot.	Bhavnagar.	Surat.	Sangli.	Kolhapur.	Dharwar.	Nasik.	Karnabi.	Hyderabad.	Total.	Range of Marks.
0 to 9	1	1	1	..	3	3	..	..	3	..	..	..	..	12	0 to 9
10 to 19	13	13	12	7	3	16	4	2	4	1	..	4	4	83	10 to 19
20 to 29	105	136	91	63	9	48	20	59	58	7	30	18	24	8	20 to 29
30 to 39	247	418	181	160	20	109	54	87	131	28	48	27	19	1,541	30 to 39
40 to 49	108	204	102	60	18	39	28	21	29	9	20	4	..	672	40 to 49
50 to 59	9	15	3	2	..	..	..	1	2	1	..	..	..	33	50 to 59
Total	483	787	390	328	59	215	106	170	227	40	98	53	47	3,000	Total.
Median	33.0	31.8	31.0	34.6	34.5	32.7	31.3	31.7	32.7	34.3	33.0	30.7	27.1	33.8	Median.
Median $\times 2^{\circ}$	66.8	63.6	62.0	69.2	69.0	65.4	62.6	63.4	65.4	68.6	66.0	61.4	54.2	67.6	Median $\times 2^{\circ}$

** These double values are given to facilitate comparison with the corresponding median values under History and Geography.*

MATRICULATION RESULTS—1929—Nos. 1* to 7,036.

History marks of those who answered that paper in English.

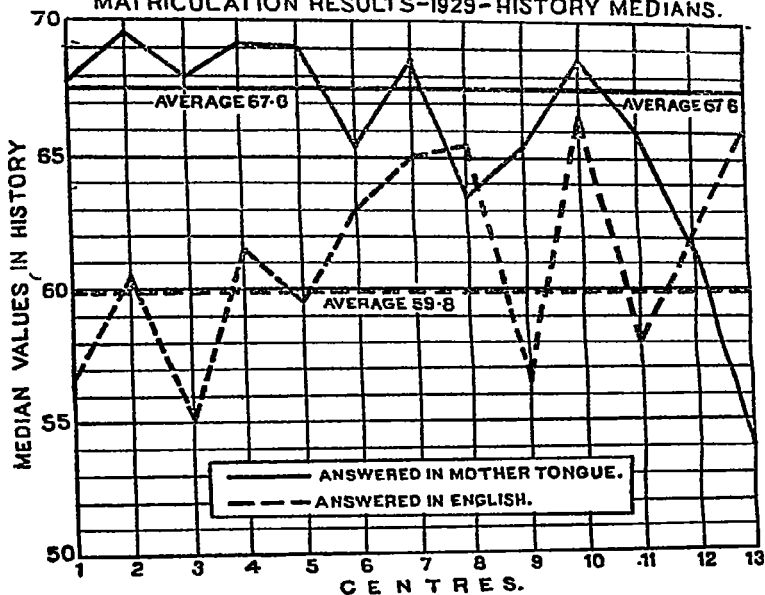
Range of Marks.	Bombay.	Poona.	Ahmedabad.	Baroda.	Rajkot.	Bhavnagar.	Surat.	Sangli.	Kolhapur.	Dharwar.	Nasik.	Karachi.	Hyderabad.	Total.	Range of Marks.
0 to 9	12	..	7	..	3	..	..	..	..	1	..	..	..	23	0 to 9
10 to 19	132	11	48	4	16	1	2	1	12	12	1	8	2	260	10 to 19
20 to 29	675	108	140	44	125	26	41	13	77	62	8	51	9	1,379	20 to 29
30 to 39	626	136	134	63	156	55	75	31	72	194	9	101	16	1,668	30 to 39
40 to 49	98	15	22	8	14	1	21	6	7	43	1	32	8	276	40 to 49
50 to 59	2	1	..	..	..	..	1	..	..	1	..	2	..	7	50 to 59
Total	1,545	271	351	119	314	83	140	61	108	313	19	194	35	3,603	Total
Median	58.3	30.2	27.6	30.8	29.8	31.6	32.6	32.7	28.3	33.2	29.0	31	33	29.9	Median
Median $\times 2^*$	56.6	60.4	55.2	61.6	59.6	63.2	65.2	65.4	56.6	66.4	58.0	62	66	59.8	Median $\times 2^*$

* These double values are given to facilitate comparison with the corresponding median values under History and Geography.

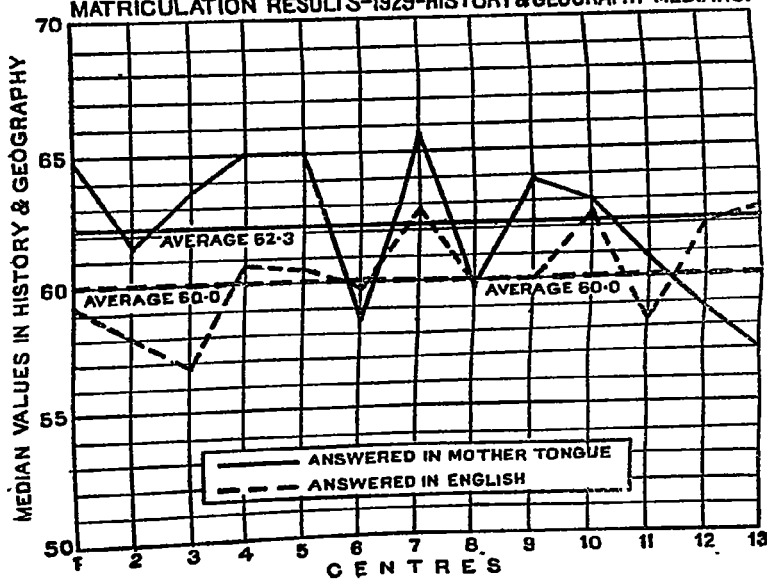
MATRICULATION EXAMINATION—1929—Nos. 1 to 11,114.
English marks of these who answered their History paper in their mother-tongue.

Range of Marks.	Range of Marks.										Total.	Hyderabad.	Karachi.	Nasik.	Dharwar.	Kolhapur.	Bangli.	Surat.	Bhavnagar.	Rajkot.	Baroda.	Ahmedabad.	Poona.	Bombay.	Range of Marks.
	1 to 50	51 to 60	61 to 70	71 to 80	81 to 90	91 to 100	101 to 110	111 to 120	121 to 130	131 to 140															
1 to 50	91	..	1	1	8	5	1	5	7	9	7	0	24	18	.
51 to 60	203	3	5	4	15	11	1	6	27	4	6	24	55	42	.
61 to 70	709	11	34	43	55	55	33	16	61	13	71	75	223	122	.
71 to 80	1,729	36	83	57	64	131	84	59	80	21	172	223	487	232	.
81 to 90	1,063	80	106	84	50	111	99	60	47	23	271	250	507	269	.
91 to 100	782	29	33	36	21	40	12	44	10	8	145	81	221	102	.
101 to 110	174	2	6	9	2	..	4	13	1	..	30	17	72	18	.
111 to 120	23	..	1	2	..	1	..	..	..	..	..	2	16	1	.
121 to 130	4	..	..	1	..	..	..	..	..	..	..	1	..	2	.
131 to 140
Total	8,738	161	269	206	203	354	234	293	233	74	702	687	1,606	806	.
Median	80.3	83.8	81.0	83.4	76.5	78.0	79.7	82.5	72.6	77.1	83.5	80.4	82.2	79.5	.

MATRICULATION RESULTS-1929-HISTORY MEDIANS.



MATRICULATION RESULTS-1929-HISTORY & GEOGRAPHY MEDIANS.



NUMBERS OF CENTRES,

- | | | | |
|-------------|-------------------|------------|------------|
| 1 BOMBAY | 4 BARODA | 7 SURAT | 10 DHARWAR |
| 2 POONA | 5 RAJKOT | 8 SANGLI | 11 NABIK |
| 3 AHMEDABAD | 6 BHAVNAGAR | 9 KOLHAPUR | 12 KARAOHI |
| | 13 HYDERABAD SIND | | |

MATRICATION EXAMINATION—1929—Nos. 1 to 11,114.
English marks of those who answered the History paper in English.

Range of Marks.	Bombay.	Poona.	Almudabad.	Baroda.	Rajkot.	Bhavnagar.	Surat.	Sangli.	Kolhapur.	Dharnar.	Nasik.	Karachi.	Hyderabad.	Total.	Range of Marks.
1 to 50	1	1	2	..	3	.	..	..	2	0	..	..	1	22	1 to 50
51 to 60	35	7	13	1	7	2	..	1	6	11	1	..	..	84	51 to 60
61 to 70	126	43	35	18	31	6	11	3	18	51	1	17	5	363	61 to 70
71 to 80	342	114	10.	57	105	26	40	30	80	131	8	77	35	1,151	71 to 80
81 to 90	591	164	218	94	141	54	91	49	109	190	10	170	75	1,940	81 to 90
91 to 100	475	88	145	60	62	13	61	11	44	101	9	120	33	1,215	91 to 100
101 to 110	165	31	51	14	6	1	23	..	10	28	5	32	7	363	101 to 110
111 to 120	39	5	9	6	1	1	5	1	3	2	1	9	..	82	111 to 120
121 to 130	6	..	2	1	..	..	1	..	..	..	2	3	..	15	121 to 130
131 to 140 . . . . .	..	..	..	1	..	..	..	..	..	..	..	..	..	1	131 to 140
Total	1,773	443	578	252	346	103	238	86	272	529	37	428	156	5,241	Total
= Median	80.4	83.6	86.2	85.3	82.0	83.2	87.2	82.2	81.9	82.9	85.5	87.0	85.0	86.1	Median

MATRICULATION RESULTS—1929.

History and History-Geography medians for different centres.

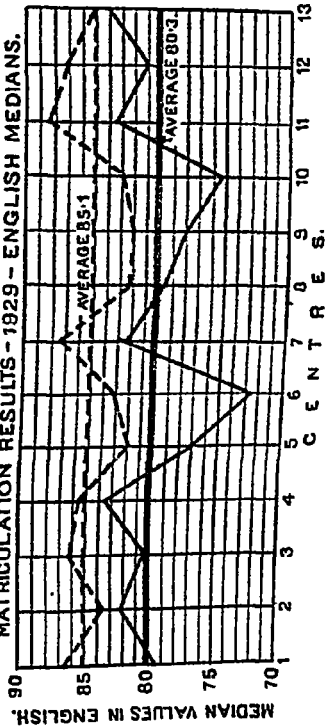
Centres.	History Medians.*			History and Geography Medians.			Change in difference.
	Mother-tongue.	English.	Difference.	Mother-tongue.	English.	Difference.	
1. Bombay	07·8	50·6	11·2	64·7	59·3	5·4	—5·8
2. Poona	00·0	00·4	0·2	61·0	58·0	3·0	—5·0
3. Ahmedabnd	08·0	55·2	12·8	63·7	50·7	7·0	—5·8
4. Baroda	00·2	61·6	7·6	65·1	61·7	3·4	—4·2
5. Rajkot	09·0	59·6	9·4	65·0	60·4	4·6	—4·8
6. Bhavnagar	65·4	63·2	2·2	58·7	59·8	—1·1	—3·3
7. Surat	68·6	65·2	3·4	65·6	62·7	2·9	—0·5
8. Sangli	63·4	65·4	—2·0	59·7	60·0	—0·3	+1·7
9. Kolhapur	65·4	56·6	8·8	63·9	60·0	3·9	—4·9
10. Dharwar	68·6	66·4	2·2	63·0	62·5	0·5	—1·7
11. Nasik	66·0	58·0	8·0	60·8	58·3	2·5	—5·5
12. Karachi	61·4	62·0	—0·6	58·7	62·2	—3·5	—2·0
13. Hyderabad	54·2	66·0	—11·8	57·0	62·5	—5·5	+6·3
All Centres	67·6	59·8	7·8	62·3	60·0	2·3	—5·5

From the above we can draw the following conclusions:—

- (1) With the exception of Sangli, Karachi and Hyderabad the mother-tongue group has scored better than the English group at all centres, in the History paper.
- (2) Except at Sangli and Hyderabad the mother-tongue group has lost a good deal of the advantage on account of the compulsion to answer the Geography paper in English.
- (3) At Bhavnagar the effect was so great that the better group became worse.

* The values in this column are double of the actual values, for easy comparison with the median values in the other column.

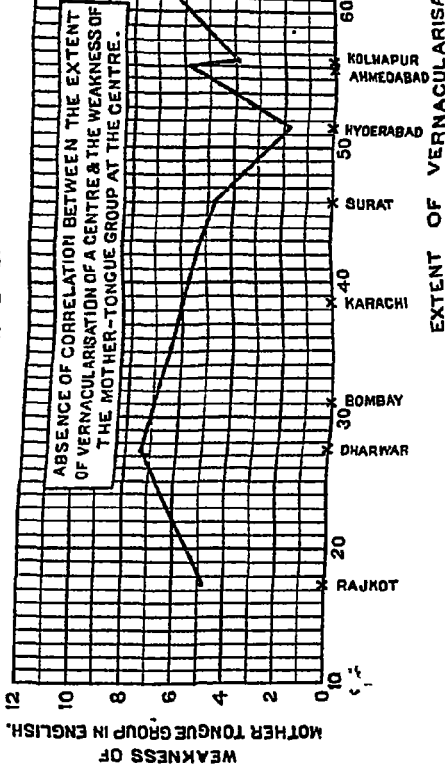
MATRICULATION RESULTS - 1929 - ENGLISH MEDIANS.



— ANSWERED IN MOTHER-TONGUE.
 --- ANSWERED IN ENGLISH.

NUMBERS OF CENTRES.

1 BOMBAY	7 SURAT
2 POONA	8 SANGLI
3 AHMEDABAD	9 KOLHAPUR
4 BARODA	10 DHARWAR
5 RAJKOT	11 NASIK
6 BHAVNAGAR	12 KARACHI
13 HYDERABAD	



ABSENCE OF CORRELATION BETWEEN THE EXTENT OF VERNACULARISATION OF A CENTRE & THE WEAKNESS OF THE MOTHER-TONGUE GROUP AT THE CENTRE.

EXTENT OF VERNACULARISATION.

- (4) The average difference for median values for History only was 7.8. The average difference for median values for History and Geography became 2.3. It is possible to suggest that the change was due to inadequate preparation in Geography of the mother-tongue group but the real reason probably was that that group was not able to express itself well in English.
- (5) The exceptional position at Sangli is probably due to the smallness of the English group. It is risky to draw conclusions from the behaviour of small groups.
- (6) It is more difficult to explain the position at Hyderabad and Karachi. It may be that the Sindhi examiners used a particularly stiff test or it may be that the mother-tongue groups at Karachi and Hyderabad wrote Sindhi worse than English.
- (7) Heads of Registered schools have been for some years demanding immediate extension of the option, to write answers in one's mother-tongue, to Geography and the above discussion shows that the demand is fair and in the interest of the students.

MATRICULATION RESULTS, 1920.
English Medians for different Centres

Centre.	English Medians of those who answered in		Difference.	Extent of Vernacularization.
	Mother-tongue.	English.		
1. Bombay	70.5	86.1	6.9	31.3
2. Poona	62.2	83.6	1.4	78.3
3. Ahmedabad	60.4	86.2	5.8	56.3
4. Baroda	67.5	85.3	1.8	77.6
5. Rajkot	77.1	82.0	1.9	17.6
6. Bhavnagar	72.6	87.2	10.6	69.4
7. Surat	82.5	87.2	4.7	10.0
8. Sangli	70.7	82.2	2.5	73.1
9. Kolhapur	78.0	91.0	3.0	56.5
10. Dharwar	75.5	82.0	7.1	27.7
11. Nasik	83.4	88.5	5.1	85.3
12. Karachi	61.0	87.0	6.0	28.7
13. Hyderabad	63.9	85.0	1.8	51.6
All Centres	50.3	87.1	4.8	63.5

In the above table it is obvious that the mother-tongue group at all centres is the weaker group in English and one is led to believe that probably there is a strong basis for the fear expressed that the increasing use of the mother-tongue in the class room will tend to affect the student's knowledge of English. But if this be a fact one would expect a certain amount of correlation between the weakness exhibited by the mother-tongue group at a centre and the extent of vernacularisation of that centre. An inspection of the last two columns would show that such correlation is non-existent. Poona, Baroda and Sangli are highly vernacularised but there the two groups are almost equally strong. Bombay, Rajkot, Dharwar and Karachi are apparently resisting vernacularisation but there the disparity between the two groups is comparatively greater. Obviously increasing use of the mother-tongue is not the cause of the comparative weakness of the mother-tongue group; at least that is not the sole cause.

It has been pointed out before that out of the 333 Registered schools in this Presidency (in 1930) as many as 150 are using the mother-tongue for class-room instruction, and among these 150 schools there are many of long standing and reputation. During the last six years not one has ever complained that the use of the mother-tongue medium was adversely affecting the English of pupils and that he had to discard the practice or to take any special precautions. Rather they have been, almost with one voice, demanding extension of the option at least to Geography.

We had therefore to look for some other explanation for the disparity between the English medians of the two groups noticed above. Nor was it difficult to obtain it. While tabulating the results it was discovered that the students from certain schools in Bombay,* which were known to use English as the medium of instruction had answered the History paper in Marathi or Gujarati and there were a few from the schools in Poona, which were known to use only Marathi as the medium of instruction, who had answered the History paper in English. It seemed therefore it was not correct to suppose that the group of students who wrote their answers in the mother-tongue were all drawn from such schools only as had introduced the mother-tongue medium for class-room instruction. Therefore in order to ascertain the exact position a letter was addressed to the heads of all schools requesting them to state if they had noticed that a certain number of students in their Matriculation classes wrote their answers in the University Examination in a language not used as the medium of instruction in their schools; and if they did notice it, what was approximately the percentage of such students. 72 schools replied in the affirmative. A list of these schools appears elsewhere (appendix A) and it will be seen that this eleventh hour change is rather more widespread than one would imagine. Many of these schools where such

* It may be noted that out of 58 schools in Bombay city (including Parel and Dadar) only 7 have left off teaching through English and these seven are all Marathi schools.

changes are extensive are the comparatively weaker schools in the Presidency. The students in these schools though taught in English throughout the year, in the Matriculation Examination, prefer to write History answers in their mother-tongue because they know that they are weak in English or are diffident of their power to express themselves in English. Swelled by such students it is but natural that the mother-tongue group did not do well in the English paper.

The replies from the heads of schools disclosed some more interesting things. In certain schools the class-teaching was done in English but some of the students read Marathi or Gujarati or Kannada books at home, wrote their answers in the mother-tongue even in weekly examinations and therefore also at the Matriculation. Will it be correct to say that they were being taught in their mother-tongue?

It seems that at least at present the comparatively poorer English of the mother-tongue group is mainly due to a sort of automatic classification going on, the students weak in English preferring to answer the History paper in their mother-tongue although they are taught through English in their schools.

There are also a few who choose to write their answers in English although they are taught in their mother-tongue. The number of such students, however, is negligible.

There is one more factor that needs consideration, the factor which will have increasing effect on the median values as the number of schools teaching through the mother-tongue medium, increases. Among the students appearing at the Matriculation there are about 300 whose mother-tongue is English and there is at least an equal number of those who have adopted English as the language of home. These six hundred are in this investigation included among those who answered their History paper in a foreign medium (English) but strictly speaking they ought to go with the mother-tongue group. They form about 10 per cent. of the English group at present and will form a much bigger part as this group becomes smaller. This error of not including these students in the mother-tongue group does not much affect the median values for History but it does affect considerably the median values for English, for this group of 600 writes the English paper with the facility which one has in writing in one's mother-tongue, gets good marks in English paper and increases the disparity between the two groups.

It, therefore, allowance be made for the four factors discussed above, viz.:—

- (1) A large number of students who are taught in English choose to write their answers in the examination, in their mother-tongue;
- (2) In some schools English is used for class-instruction but students are permitted to read at home from Marathi (or Gujarati or Kannada) books and to write their answers in the language in school examinations;

- (3) Some students, though taught in Marathi or Gujarati, read from English books at home and in the Matriculation write their answers in English. They are as a rule good students strong in English;
- (4) Among the group which answers in English there are about 12 to 15 per cent. students whose mother-tongue is English or who have adopted English as the language at home;

there does not appear to be sufficient evidence to declare with any certainty that the disparity in English-marks in the two groups is necessarily the result of the increasing use of the mother-tongue. The median values at Poona, Baroda and Nasik, which are the centres most vernacularised, rather indicate that if there be any adverse effect on the student's knowledge of English it is probably not very great. As has been already stated the impression of the heads of schools using mother-tongue medium appears to confirm that view.

The comparative weakness in English of the students answering their History paper in the mother-tongue is mostly due to a sort of automatic selection. To students who are weak in English and are conscious of their deficiency the permission to write answers in their mother-tongue came as a god-send and they are taking the fullest advantage of it. Many of them are still taught through the English medium and therefore their weakness cannot be attributed to the increasing use of the mother-tongue in the class-room.

On the other hand this gradual separation of the weaker students has considerably improved the quality of the other-group which uses English for its answers. That group now contains mostly such students as are strong in English or have English as their mother-tongue or have adopted English as the language of home.

V. How they work in Schools.

The following extracts are collected from the letters of the heads of Registered schools in reply to a questionnaire addressed to them in August 1930. They throw a flood of light on the nature of the operation of the University regulation permitting students to write their answers in Indian classical language and History papers in English or their mother-tongue.

1. *The Elphinstone High School, Bombay.*—"The Vernacular medium is growing popular in Sanskrit. In History it is not possible to introduce the Vernacular medium in this school as it is the Practising School of the Secondary Training College which undertakes to train teachers from all parts of the Presidency; many of them know neither Marathi nor Gujarati, the Vernaculars of the school."

2. *Ramamohan English School, Bombay.*—"About ten per cent of the students write their answers in Marathi though the medium of instruction in this school is English only. "The change" says the headmaster, "is only an eleventh hour one but the students have it in view probably from the time they join the Matriculation class. The reason is that they hope to be able to express themselves better in their mother-tongue than in English which is to them a foreign language."

3. *Government High School, Nask.*—"The medium of instruction in this school is Marathi but about six per cent. of the students write their answers in English. "It is only a few Mahomedan students, whose knowledge of Marathi is sufficient for them to be able to follow History lessons given in Marathi but is insufficient for them to write correctly in Marathi, that offer the medium of English (or Urdu) at the Matriculation Examination."

4. *George English School, Vengurla*—"The medium of instruction in this school is Marathi but some students write their answers in English. This has been due to the fact that these students were taught the subject through English up to the fifth standard (i.e., before the school adopted Marathi as the medium of instruction) and then continued to read English text books at home."

5. *Government High School, Thana.*—"The medium of instruction in this school is Marathi but "the students that desire to answer the papers in English are allowed to do so even at the weekly school examinations and it is these students who offer English as the medium for answers for the Matriculation Examination. This is done by students who think, or are advised by their guardians, that if they prepare the subject by reading the books on the subject written in English they would be able to get a greater mastery over the English language". The number of such stu-

dents however is fast disappearing, as can be seen from the following figures :

Year.	No. of students who answered in English.	
	History paper.	Sanskrit paper.
1928	16	4
1929	0	0
1930	1	0

6. *S. P. Hakimji High School, Bordi*.—This school has a strange procedure. Up to Standard VI it teaches History through Marathi and Gujarati. But in Standard VII, the teaching is done through English "as it is inconvenient (owing to smallness of number) to separate the boys into two classes. Boys, however, write their examination papers in their mother-tongue". The result is that although the medium of instruction in this school is English in Standard VII, 90 per cent. of the boys write their History answers at the Matriculation in Marathi or Gujarati.

7. *G. S. High School, Jalgaon*.—The medium of instruction in this school (for History) is English but "at the school examinations the students give their answers in the Vernacular from the beginning" with the result that about 33 per cent. of the students, though taught in English, write their History answers in Marathi.

On the other hand about 4 per cent. of the students of Sanskrit though taught in Marathi write their Sanskrit answers in English.

8. *M. E. Society's High School, Poona*.—"As long as the University is not inclined to print in different Vernaculars the question papers* in subjects in which option is granted to boys to write their answers in English or Vernacular, instruction has to be carried on through English, but boys have the option of answering questions (in the class-room) either in English or Marathi."

* The question papers set by the University are all in English only.

9. *The Night High School, Poona*.—"Some Gujarati students, though they are taught History in Marathi or English write their answers in Gujarati."

10. *St. Vincent's High School, Poona*.—"The majority of our students are Goans or East Indians, and it is difficult to define their mother-tongue. The Goans know Konkani and the East Indians a kind of Marathi dialect. The students were therefore asked what language they ordinarily used in their family circle. Of those who gave English as the usual means of conversation 11 speak both English and Konkani at home; the others use English only.

11. *Northcote High School, Sholapur*.—"History is taught through the medium of English both in the pre-Matric and Matric classes. But students are allowed to answer the questions in History in their own Vernacular. This option is exercised throughout the year. Students are not allowed to change this, either from English to the Vernacular or *vice versa* at the eleventh hour."

12. *Garud High School, Dhulia*.—"History is taught chiefly through Marathi but for the benefit of the few who do not understand Marathi or who wish to answer their papers at the examination in English, additional explanation is given in English."

"So far as subjects admitting of instruction through Marathi are concerned, it may be said that a very great majority of pupils avail themselves of the concession. In a class of 35 there would not be more than 6 who would listen to explanation given in English where answers through Marathi are permitted."

13. *Municipal High School, Nandurbar*.—"Though the subjects are taught in English, students all along read at home in their mother-tongue their History book and they never dream of writing in English. They answer their papers in quarterly examinations in their own Vernaculars. All students resort to this procedure without exception, with the result that all the students from this high school, without exception, wrote their papers (in 1930) either in Marathi or Gujarati though they were taught in English for full one year."

14. *The Webb Memorial Girls School, Baroda*.—"In connexion with this subject I beg to suggest that the questions in the Matriculation Examination should be presented in the language which has been the medium of instruction. I refer particularly to History. Permission is given to students to study History in their own Vernaculars yet questions are presented in English. If this could be remedied and questions set in both English and the Vernacular, it seems to me that this would be more logical."

15. *D. N. High School, Anand*.—"Boys coming from other schools where they have been taught through English, offer Gujarati as their medium of examination even at the eleventh hour. But no boy has been found to have offered English as the medium of examination after he has been taught through Gujarati."

16. *New High School, Dahud*.—"The reason which influences the students in favour of the eleventh hour change is their practice of reading a subject in English at home." (The medium of instruction adopted by this school is Gujarati, but some boys write their answers in English.)

17. *Jubilee High School, Umreth*.—"The medium adopted by this school is Gujarati but some 3 per cent. of the students write their answers in English "in the vague belief that they can get more marks by answering the papers in English."

18. *Telang High School, Godhra*.—History is taught in English but the students write their answers at the Matriculation in Gujarati. Thus:—

Year	No. of students who answered in Gujarati.
1928	23 out of 27 sent up.
1929	27 .. 33 ..
1930	25 .. 36 ..

19. *D. C. O. Sarrajanik High School, Pardi.*—Gujarati is the medium adopted for History but “some Parsi students due to their inability to express themselves in correct Gujarati, prefer to write their answers in English as they are under the impression that bad English is better than bad Gujarati”.

20. *N. G. Jhaveri Jain High School, Surat.*—For three years (1927 to 1930) the Matric class was taught History through English, but Gujarati is now adopted as the medium of instruction. The headmaster was, it seems, influenced to adopt this change by the following figures:—

Year	No. of students who answered in Gujarati.
1928	0 out of 31 sent up.
1929	13 „ 27 „
1930	31 „ 33 „

21. *Sir J. J. English School, Surat.*—“The school is meant for Parsi boys only, whose mother-tongue is nominally Gujarati but not so pure as the standard expected in public examinations. It is a mixed Parsi dialect and the average student is very weak in orthography. Another contributing factor is that Persian is the only “other language” taught here. It is thus a compulsory second language for all classes from Standard IV. Thus whatever Gujarati they pick up on an improved basis is during the middle school course only..... The effect of this is that while all would prefer to answer their questions in History, second language and Science through a Vernacular medium they are afraid to lose marks if a strict examiner reads their poor idioms and unorthographical diction. Thus they are sticking to the next best alternative of answering all their papers in English only.

“There were cases when in previous years three or four students expressed their intention at the outset to get ready to answer their papers in Vernacular. But they lost courage and at the time of actual application they declared their diffidence and undertook to answer all questions in English.”

“In class work practice mixed media have to be employed but in all weekly and terminal examinations of standards above the Fifth, English is used all through. In lower classes we allow all to answer in Vernacular.... Thus there is a reluctant change from Vernacular to English on account of the circumstances narrated above. These are very peculiar and exceptional and do not seem to have an easy solution.”

22. *Sorabji J. J. School, Surat.*—“Students generally declare after the preliminary examination what their medium of examination would be. The declaration does not interfere with teaching which continues unaltered through one and the same medium, viz., English.”

23. *T. and T. T. Sarrajanik High School, Surat.*—“Some students after learning History through English throughout the year offer to be examined through the Vernacular in the belief that papers written in the Vernacular are more leniently examined.”

24. *Saurashtra High School, Rajkot*.—"If a candidate who studies these subjects (History and Sanskrit) in English throughout the year fails at the Preliminary examination in any of these subjects and if he feels that his failure is due to lack of power of expression in English, he offers to answer questions in those subjects at the University examination in his Vernacular for ensuring or increasing chances of his success there."

25. *Basaveshwar High School, Bagalkot*.—"Last year (1929) five students offered to answer the History paper in Kanarese" though taught in English and the number increased this year. So it is arranged to teach the subject in Kanarese as more than half the number in the class have shown preference to Kanarese."

26. *P. D. J. High School, Bijapur*.—"Yes, some students write their answers in the Vernacular, though taught in English" says the headmaster of this school. In his opinion they do it to evade bad show of English in their History answers. The number of such students has been steadily increasing.

Year	No. of students who answered in Kannada.									
1928	3 out of 48
1929	12 " 48
1930	21 " 63

27. *Government High School, Dharwar*.—"Dharwar being on the border of Maharashtra and Karnatak, in each standard there are some students who cannot understand Kanarese, the predominant language of the District. Their number in each standard, also, is not large enough for the formation of a separate division. Hence the difficulty of introducing Vernacular as the medium of instruction."

28. *Gibb High School, Kumta*.—"The mother-tongue of most of the boys of our school is Konkani, a dialect of this side and, as such, there is no demand for a medium of instruction other than English."

29. *Government High School, Karwar*.—Same as above.

30. *Navalrai H. Academy, Hyderabad-Sind*.—"History is taught in this school in Sindhi but half a dozen students every year prefer to write their answer in English as "they are under the false notion that if they write their answers in English they will get more marks."

31. *Indian Girls High School, Karachi*.—"English is the medium of instruction in this school.

"As the students naturally find themselves in difficulties in expressing themselves in English even when they can understand it, they are allowed to answer their examination papers in Sindhi or English in some subjects, *i.e.*, History and General knowledge; we should also allow this in Geography if the University allowed them to do so in the Matriculation Examination. We would be very pleased if this was allowed as there is no doubt whatever that, as things are, the test in Matriculation is rather one of power of

* 'Kanarese' is English corruption of 'Kannada'.

expression in English than knowledge of the subject; we have found that it makes a great deal of difference whether the girls are allowed to answer in their mother-tongue (Sindhi) or in English only.

"I have seen a great deal of High School and College work all over India, having been in the I. E. S. in Bengal and having worked before and since in Madras Presidency, Bombay Presidency, Central India and now here; I have also from my official position as Educational Secretary to the All-India Women's Conference come into touch with a great deal of experience in this direction; and there is no doubt whatever that the work of the girl students (and no doubt also of the boy students) is hindered to a large extent by being examined and taught in a foreign language.

"I often wonder what would be the fate of the best boys and girls at home if they were taught their lessons in French or German and examined in that language; it is obvious that the thing tested would not be their knowledge of the subject but their French or German vocabulary and their power of expression in that language. (The writer is a British woman.)

"I would strongly recommend the gradual increase of the permission now only given for History of answering their paper in their own Vernacular."

32. *Sind Madrassah, Karachi*.—The medium of instruction in this school is English but, says the headmaster, "backward students are encouraged to answer History questions in Vernaculars."

33. *Shikarpur Academy, Shikarpur*.—The number of students choosing to answer the History paper in Sindhi has been steadily increasing in this school, although the medium of instruction in the Matric class is English. They were—

In 1928	.	.	.	.	.	.	.	18 per cent.
" 29	.	.	.	.	.	.	.	20 "
" 30	.	.	.	.	.	.	.	50 "

34. *Government Madrassah and High School, Mirpurkhas*.—The medium of instruction in this school is Sindhi. "In this District" writes the headmaster, "there are some colonies of Punjabis whose mother-tongue is Urdu, but having stayed here for good many years, they are well conversant with the chief dialect of the Province, which is Sindhi. No difficulty whatsoever is experienced even in their case for Sindhi to be the medium of instruction. In fact the sons and daughters of these Punjabi settlers learn Sindhi from their infancy and even appear at the Middle and High School Scholarship examinations in Sindhi."

35. *Dabhoi High School, Dabhoi*.—"For some time History was taught in this school through English and Gujarati, but the number of students attending History class in English dwindled considerably and the class was discontinued."

36. *Padra High School, Padra*.—"At times a Marathi student or two who study here use Marathi as the medium for their answers in the Matriculation Examination." (The medium of instruction in this school is Gujarati.)

37. *Sir C. J. R. High School, Ganadevi*.—"Occasionally a Parsi or a Marathi student not feeling confident of his Gujarati prefers to write his History paper in English."

38. *Alfred High School, Bhuj*.—"From the current year (1930) Gujarati is used as the medium of instruction in Second language (Sanskrit) and History as an experimental measure."

39. *Alfred High School, Bhavanagar*.—"The medium of instruction in this school is Gujarati but some write their answers in English. The cause of this, in the opinion of the headmaster, is 'students' diffidence in their ability to answer papers in the Vernacular and their belief that the English medium would help them to obtain a mastery of that language that will be of great use to them when they go to a college where examinations in all the subjects are held through the English medium.'"

40. *Sangramji High School, Gondal*.—"As long as students are allowed an option they would not like to change the English medium, nor would we—the school authorities—encourage them to do so under the belief that their knowledge of English would suffer if Vernacular were adopted as the medium of instruction." The headmaster suggests that the University should make use of the mother-tongue medium compulsory.

41. *Private High School, Kolhapur*.—"The medium of instruction in this school is Marathi. Occasionally a Kanarese student, though he understands Marathi and speaks it well, writes his answers in English for he feels he may not be able to write them in Marathi equally well."

42. *Vidyapeeth High School, Kolhapur*.—"Some ten per cent. of the students who are good at English answer their History paper in English." (History is taught in this school in Marathi.)

43. *Palanpur High School, Palanpur*.—"Some five Mohamedan students afraid of writing in correct Gujarati preferred English for their answers."

44. *City High School, Sangali*.—"Kanarese and Urdu students who can understand Marathi but cannot write it, prefer to write their answers in English..... Also competitors for the Sanskrit Scholarship prefer to write their answers in English for they believe that that affords a fair field for open competition. This number however is steadily going down."

* * * * *

A perusal of the above extracts though interesting must appear puzzling at first sight. The University of Bombay and the schools registered by it have been for the last seven years following an apparently illogical procedure. Beyond passing the regulation permitting students to write answers in certain subjects in their

mother-tongue or English and arranging to examine the answers in different languages, the University has shown little interest in the experiment. It has encouraged a policy of absolute *laissez faire*. There is no compulsion on schools or students to choose one medium of instruction and to stick to it. There are thus the following procedures in vogue:—

- (1) Students are taught in their mother-tongue and in the examination they write their answers in the mother-tongue.
- (2) Students are taught in English and they write their answers in English.
- (3) Students are taught in English but are allowed to write their answers in English or the mother-tongue even in the school examinations.
- (4) Students are taught in Marathi (or Gujarati or Kannada according to the situation of the school) and if there be a non-Marathi (or non-Gujarati or non-Kannada) student in the class he writes his answers in English even in the school examinations.
- (5) In mixed schools with students of different mother-tongues instruction is given in English, or in the language of the majority group and the students write their answers in English or in their mother-tongues.
- (6) In many schools instruction is given in English, the school examinations are held in English, but in the University examination the students write their answers in their mother-tongues. Weaker students, as a rule, take advantage of this permission.
- (7) As a result of the above a number of schools which favoured the use of English medium have now discarded it and adopted the mother-tongue medium for class instruction. The annually increasing number from their schools, choosing to write their answers in the mother-tongue medium persuaded them to make the change.

All this apparent chaos, however, has made things very smooth. Absence of compulsion of any sort and entire absence of rigidity has avoided friction. Those willing to take the risk led the way and adopted the use of the mother-tongue medium. Others less bold willingly followed when they discovered that the risk was imaginary. A good ground is already covered and in a few more years it is expected that most schools in the Presidency will be using only the mother-tongue for class-room instruction in History and Sanskrit.

VI. Conclusion.

Before concluding this monograph it will not be inappropriate to touch a few questions arising out of the investigation.

1. In the replies received from the heads of schools to the questionnaire circulated to them, they have in most cases demanded immediate extension of the regulation to the subject of Geography. In Mathematics and Science the use of the mother-tongue medium does not offer so great an advantage as it does in History. In studying these subjects one has to know a number of technical terms and to master a vocabulary peculiar to the subject, whether they are studied in the mother-tongue or in English, and one may as well know the English technical terms and English vocabulary as they will be of use in college classes and technical institutes. But Geography as it is studied in schools is a human science and like History it can be with greater ease studied from books written in one's mother-tongue. A comparison of the median values for History only and those for History and Geography have disclosed the fact that students are seriously handicapped by having to write the Geography answers in English.

2. While the students are permitted to write in their mother-tongue the answers in History and Sanskrit (or Pali, or Persian or Arabic), the question papers are set in English only and an attack is occasionally made on this apparent absurdity. Experienced heads of schools, however, have deliberately avoided controversy over this issue lest the consequent administrative difficulties—real and imaginary—might endanger the retention of the present concession earned after strenuous fight extending over several years. In the Bombay University it has been the practice to print the question papers locally at a centre, an hour or two before they are distributed to the candidates, and it is contended that it will be difficult to find at all centres presses able to cope with the work if they have to print question papers in English as well as in the different languages of the Presidency. In fact an attempt was made in 1927 to set the passage in the Sanskrit paper (for translation into Sanskrit) in English as well as in Marathi, Gujarati, Kannada, Sindhi, etc., and it was found that in one or two centres the press management collapsed and the distribution of papers was delayed by an hour or so.

Moreover the question paper in English has not so far proved as great an inconvenience as it was felt it would. In the beginning a large proportion of the students taking advantage of the option had read the subject from English books and, as has been shown elsewhere they do it even now. One has not to know any special vocabulary to understand the History and Sanskrit question papers set in English and in order to acquaint the student with the few words that are peculiar to these subjects, the schools set papers in English at the weekly, quarterly and terminal examinations. An English paper therefore does not cause any special inconvenience;

but there is no doubt that it would be an advantage to have a question paper in the language in which one would write the answers, and the University should carefully consider if something may not be done to help the students in this respect.

One obvious suggestion that can be made in this connexion is to print at a centre the question paper in English and in the language of the majority group at the centre, or in two languages if there be two language groups equally strong as in Baroda, Bombay or Belgaum. The press difficulties will then be minimised.

3. Elsewhere are given figures showing the number of schools that have adopted mother-tongue medium for class-room instruction. The Marathi schools have been in the fore-front and the Gujarati and Sindhi schools are not much behind. It is not however easy to understand why the Kannada schools are luke warm in this respect. It may be that there is a paucity of good books; it may be that most of the Kannada schools contain a good number of Marathi students but not enough for a separate division. The chief reason, however, appears to be the absence of a headmaster convinced of the importance of using the mother-tongue medium for class-room work, willing to take risk if any, and doggedly fighting for success.

4. The investigation has so far shown that—

- (a) Those who answer History paper in their mother-tongue do, as a rule, fare better in the examination than those who answer it in English.
- (b) The compulsion to answer the Geography paper in English only, partially deprives the students of the advantage they get by answering the History paper in their mother-tongue. The option to write answers in one's mother-tongue should be as soon as possible extended to Geography.
- (c) Those who answer their History paper in their mother-tongue do, as a rule, fare badly in English. This may be due to the increasing use of the mother-tongue in the class-room but a closer scrutiny shows that that is probably not the case.
- (d) There is complete absence of correlation between the extent of vernacularisation of a centre and the weakness in English exhibited by the mother-tongue group at the place. Thus, at Poona, Baroda and Nasik, where the vernacularisation is over 75 per cent. the mother-tongue group is only a little weaker than the English group; while at Bombay and Dharwar, where the extent of vernacularisation is very small, the disparity between the two groups is greater.
- (e) Among the mother-tongue group there are a large number of students who are taught in English but who prefer to

write their answers in the mother-tongue, for they feel diffident of their power of expression in English.

- (f) There has thus been a process of automatic selection, boys weak in English preferring to write their answers in the mother-tongue even though taught in English. Their presence is to a large extent responsible for the comparatively lower median values of the mother-tongue group.

(g) This automatic shifting of the weaker element to the mother-tongue group naturally tends to improve the quality of the English group. Moreover this latter group contains about 10 to 12 per cent. students whose mother-tongue is English. They score heavily in English and are responsible for better median values of the English group.

- (h) The University of Bombay and the schools registered by it have so far followed a policy of *laissez faire*, a policy which would appear illogical and unpedagogical to an arm-chair critic but which appears to have helped the progress of the experiment by avoiding friction.

5. Have these conclusions any finality? Certainly not. They are based on the analysis of one year's results only and it will be incorrect to treat them as the last word on the question. They must be tested further, particularly the conclusions regarding the weakness of the mother-tongue group in English. The following methods of verification suggest themselves to us:—

- (a) To tabulate similarly the results of 1930, 1931 and 1932 and to find out if the conclusions obtained so far are borne out. The results of 1930 are already tabulated and they show similar median values. Thus—

Median values for

	Mother-tongue group.	English group.
History only	61.8 (30.9 × 2)	50.6 (20.8 × 2)
History and Geography	58.5	59.0
English	77.0	83.3

but the standard of examination varies year after year and one cannot say what the results of 1931 and 1932 will show. Perhaps it will be better to take all the three results together so that the effects of the variation of the standard will be minimised.

- (b) To sort out schools into two groups: (1) those that have been using English and (2) those that have been using the mother-tongue medium, to tabulate their English

results during the last ten years and study their median values.

This must take a year or more. The work can be done only during long vacations and the sorting out of the required material is a slow process. But it will be done so far as possible.

Meanwhile it is hoped that this short monograph will be found instructive, incomplete though it is in many respects.

APPENDIX A.

Number of students taught in English but answering in mother-tongue.

The following schools teach History in English but some of their students answer the History paper, at the Matriculation examination, in their mother-tongue. The reasons given for this eleventh-hour change are:—

- (1) Diffidence in one's power of expression in English.
- (2) Confidence in one's power of expression in one's mother-tongue.
- (3) Weak English.
- (4) Better mastery over one's mother-tongue.

Name of the School	Number changing. Per cent.
1. Kabibai Hindu High School, Bombay	5
2. Bharda New High School, Bombay	2
3. Bradley Night High School, Bombay	50
4. Chandaramji Girls' School, Bombay	3
5. Chhilitask Samuha High School, Bombay	30
6. Elphinstone High School, Bombay	14
7. Girgaum English School, Bombay	60
8. M. K. N. Bhatia High School, Bombay	25
9. New Bombay High School, Bombay	5
10. Proprietary and Port High School, Bombay	23
11. Ramamohan English School, Bombay	10
12. Robert Mence High School, Bombay	4
13. S. S. League's Night School, Parel, Bombay	a few.
14. Wilson High School, Bombay	14
15. Private English School, Pen	75
16. Alfred Gadney School, Dapoli	10
17. A. P. Mission High School, Vengurla	5
18. K. D. High School, Chinchani	10
19. S. P. Hakimji Boarding School, Bardi	90
20. G. S. High School, Jalgaon	33
21. Anglo-Urdu High School, Poona	7
22. Darul-Ulm-School, Panchagani	25
23. Hindu High School, Panchagani	33
24. Government High School, Sutara	4
25. Municipal High School, Nandurbar	100
26. Birla High School, Dhanduka	15
27. Government Girl's High School, Ahmedabad	50
28. I. P. Mission High School, Ahmedabad	50
29. Municipal High School, Rapadwanj	75
30. Telang High School, Godhra	80
31. Bai Avabai High School, Bulsar	22
32. I. P. Mission High School, Surat	25
33. Mandavi High School, Surat	100
34. B. P. Jain High School, Surat	90
35. Sarabji J. J. High School, Surat	12

Name of the School-	Number changing. Per cent.
36. T. T. V. Sarvajanic High School, Surat	10
37. Gilganchi Artak High School, Belgaum	40
38. Municipal High School, Gokak	100
39. Municipal High School, Nipani	50
40. Sardar's High School, Belgaum	75
41. Basaveshwar High School, Bagalkot	15
42. Government High School, Bijapur	15
43. P. D. J. High School, Bijapur	40
44. Government High School, Dharwar	10
46. Lamington High School, Hubli	20
47. Municipal High School Gadag	a few.
48. Victoria High School, Dharwar	20
49. New English School, Hubli	3
50. Government High School, Karwar	20
51. Marikamba High School, Sirsi	10
52. Nava-Vidyalaya, Hyderabad-Sind	20
53. N. J. High School, Karachi	22
54. Sind Madressah, Karachi	12
55. K. C. Academy, Bhira	5
56. District Local Board's High School, Tharusha	70
57. Madrassah and High School, Naushahro	75
58. Municipal High School, Sukkar	95
59. P. D. S. High School, Shikarpur	64
60. M. R. Tata High School, Bilimora	100
61. T. V. High School, Bhadram	90
62. Shri Mohandavji High School, Dharampur	33
63. Harbhat High School, Kundagol	14.4
64. Sir Siddi Ahmedkhan High School, Murud-Janjira	50
65. Alfred High School, Rajkot	1
66. Coronation High School, Mangrol	60
67. Naz High School, Khairpur	5
68. Irwin Christian High School, Kolhapur	25
69. King George High School, Mudhol	28
70. The State High School, Rajpipla	60
71. Ranjit Singji High School, Deogadbaria	8
72. The State High School, Savantwadi	60

This list is prepared from information collected in 1930-31. Even then probably it was incomplete and there were at least a dozen more schools where such eleventh-hour changes in the choice of medium were occurring but were not mentioned by the heads of schools in their replies. Eighteen more schools are registered since then and many of them probably come in that category.

It is also not unlikely that some of the schools which are using English as the medium of instruction but do not appear in the above list, are probably due now for their insertion therein. For the tolerance of this eleventh-hour change to mother-tongue medium is an intermediate step towards the adoption of the mother-tongue medium for class-room instruction.

APPENDIX B.

Extent of Vernacularization in 1932.

Centres.	History. Answered in		Sanskrit. Answered in		Persian. Answered in	
	English.	Mother-tongue.	English.	Mother-tongue.	English.	Mother-tongue.
Bombay	2,041	1,150	306	538	371	3
Poona	204	2,003	41	762	99	0
Ahmedabad	277	1,043	17	215	63	27
Baroda	138	1,403	32	256	67	26
Rajkot	542	221	143	58	60	2
Surat	184	504	3	118	130	15
Bhavnagar	92	359	10	70	20	...
Dharwar	502	305	134	136	34	...
Kolhapur	93	638	32	167	20	1
Sangli	59	327	18	112	1	...
Bolgaum	333	312	95	95	39	...
Nasik	31	343	2	80	25	2
Karachi	462	427	28	0	83	5
Hyderabad	107	412	2	...	6	2
Shikarpur	41	450	...	...	6	4
TOTAL	5,196	10,056	962	2,612	1,045	96

APPENDIX C.

Language Medium and Bi-lingualism.

[The following extracts are taken from "Bilingualism" by Dr. Michael West, Principal of the Teachers' Training College, Dacca, published by the Bureau of Education, India, as Occasional Report, No. 13. Price Rs. 24.]

Bilingualism is in the main a disadvantage, but if there has been a tendency on the one hand to make too much of the supposed advantages, so also are the disadvantages too often exaggerated. It is maintained that bilingualism hampers the progress of children at school, that it causes excessive mental fatigue, that it represses originality, leads to parrot-learning. These accusations arise in a large measure from a confusion in thought between bilingualism, and what is by no means a necessary although it is a very frequent concomitant of bilingualism, the foreign medium of instruction.

It is obviously possible to maintain that the Bengali should be bilingual, but yet that the spoken foreign medium of instruction should ~~not~~ be used. The boy would be taught in Bengali (though some ~~of~~ ^{of his} ~~text-books~~ ^{text-books} might even be English); and he would answer his examination papers in Bengali. This would not mean that he would be unable to speak or to write English, but that the writing and speaking of English would be treated as a separate subject. The distinction is in itself sufficiently simple, but how little it is actually made, how often there is confusion on the point, will be realised by glancing through the Calcutta University Commission's Report.

Thus Professor A. Brown argues that "if the Vernacular be the medium of instruction and of examination the student would be virtually cut off from every chance of access to the fountain head of Western learning. He would never read an English book, but would compel his teacher to confine himself to boiling down English authorities in Vernacular notes." Yet the English student of chemistry is taught in his mother-tongue and examined in his mother-tongue, but is not cut off from the "fountain head" of German Chemical Research.

Mr. J. W. Gunn is in favour of the foreign medium because "under existing conditions a good knowledge of English is a matter of breed and policy. Moreover English is rapidly becoming the much-needed *lingua franca* of educated India". One may imagine both these purposes fulfilled without teaching History, Geography and Arithmetic in English.

"It struck me", said Mr. Orange at the Imperial Education Conference, 1911, "in listening to Dr. Viljon and Mackay that they had not laid emphasis on what we find it necessary to lay a great deal of emphasis on, that is, the distinction between teaching a second language and using it as a medium of instruction." Yet in spite of all emphasis, the confusion persists and wherever the question of the foreign medium in the class-room or the examination room arises, it is met by a large amount of argument which refers generally to the inclusion of English as a special subject, rather than to its use as a medium of instruction in particular.

A striking instance of this is found in the debate on ~~Mr. Raynagar's~~ ^{Mr. Raynagar's} resolution¹ in the Imperial Council in 1915. Mr. Raynagar's resolution was in favour of teaching through the medium of the Vernacular, but the speeches are to a very marked extent arguments concerning the retention of English as a subject. "In India" says Mr. Garansi, "where a diversity of languages and creed prevail, it is the earnest desire of all patriotic men to push forward

¹ Calcutta University Commission's Report, Volume X, page 311.

² Calcutta University Commission's Report, Volume X, page 309.

³ Mr. Orange was at one time the educational adviser of the Government of India.

⁴ Gilchrist, R. N., Indian Nationality, page 67. Calcutta University Commission's Report, Volume II, page 239.

the knowledge of English which alone is the *lingua franca* between all sects". "All these results" says Sir Surendranath Banerjee, "have been achieved because the medium of our education has been the language of Macaulay and Burke." "Does he want to envelope us in the gloom and darkness which prevailed in the country during the time when Lord Macaulay came to this country and which his great educational policy was instrumental in dispelling?" asks Rai Sitannath Ray Bahadur. Mr. Raynagar never suggested the removal of English from the curriculum: his resolution concerned the medium of instruction in subjects other than English, and he might well have advocated this change in order, by saving time on the other subjects, to improve the study of English.

The use of a "Foreign Medium of Instruction" means the imparting of instruction to a pupil in a language other than his mother-tongue. In its ordinary meaning the foreign medium connotes especially oral instruction, and implies that the pupils' oral and written answers are in the foreign medium.

It is obvious that in any country in the position of Bengal the foreign medium is unavoidable in the educational system at some stage. It is unavoidable at the point where—

- (1) Vernacular reference books and text-books cannot be obtained.
- (2) The vocabulary of the Vernacular is inadequate for discussion of the subject.
- (3) The members of the class and the staff of instructors are mixed. Bengali and non-Bengali.

Probably no one would deny that, in the present condition of Bengal, in an M.A. and M.Sc. class the foreign medium is inevitably necessary (except perhaps for a degree in Oriental languages); but below that point the question may be open to discussion. Ultimately the problem of the foreign medium, reduces itself to a question of age or class,—at what age or at what point in the educational system, is the foreign medium unavoidably necessary for efficient instruction?

The problem is, however, complicated by the tendency of all important subjects to spread downwards in an educational system; thus, in the present instance, we may admit that at a certain stage of University work the English medium does appear necessary: but as a result of this the Intermediate College is called upon to give preliminary practice in the English medium, and again the boys preparing for the Intermediate College require a preliminary practice for the English medium as used in the Intermediate College, and so on down to the Middle English School. In considering the opinions of the people of Bengal themselves on the foreign medium we must, therefore, remember that a certain proportion of these are not based on considerations of actual needs at a given stage of the educational system, but on the needs of some higher stage before it is actually reached.

The Effects of the Use of the Foreign Medium.

The Headmaster of the Hooghly Branch School gave witness before the Calcutta University Commission to the effect that the foreign medium "creates artificiality and restraint" in the class-room. Mr. Schmidt¹ consulted South African teachers² and mentions forty as bearing witness to the increased interest of the pupils when the native medium is used. Maybell Bush³ notes a similar phenomenon in regard to immigrants in America: it is also remarked on in U. S. Bureau of Education Bulletin on the Education of the Immigrant⁴, and by Jadhav⁵ in reference to science students in India. The Hon'ble

¹ Schmidt, C., Unpublished Thesis, University of Oxford.

² Bush Maybell, "First School-days of a non-English child".

³ "The Education of the Immigrant", U. S. Bureau of Education, Bulletin 61.

⁴ Jadhav, G. M., "Science for Indian Pupils", Times Educational Supplement, August 4, 1923, page 305.

Mr. F. J. Monahan considers that the foreign medium "stunts and retards the intellectual development of a naturally gifted people"; so also the Right Rev. H. Whitehead (recently Bishop of Madras). Loram¹ attributes to it the high percentage of elimination from school in South Africa and in the Philippines, a phenomenon which is even more marked in Bengal and in India generally than in South Africa. Mr. Wandervollen², Government Inspector of Schools, Brussels, considers the foreign medium to be especially disastrous in the case of the teaching of the things of spirit". Loram³, quoting F. B. Sargent (Report on Native Education in South Africa) attributes to the foreign medium the phenomenon of Saturation, or failure to make further progress after early adolescence; he considers this to be due to the boy's inability to arrange and assimilate matter acquired in a foreign tongue, also to the failure of such teaching to create pleasure. Inability to study intelligently and parrot-learning are attributed to the foreign medium by a committee of teachers of the Angleses⁴ Education Committee⁵, by Schmidt⁶, by Loram⁷, by Skelton⁸. The South African teachers (noted by Schmidt) and J. N. Sarkis⁹ comment on the lack of originality induced by the foreign medium. "We are an army of mediocres," says Mr. J. N. Sarkis. The evidence of the witnesses of the Calcutta University Commission's Report¹⁰ as to the detailed effects of this foreign medium is thus not unconfirmed by the experience of other countries, Belgium, Canada, South Africa, Wales, the Philippines. The effects noted are:

(1) Lack of responsiveness in the class.

(2) Lack of Interest.

(3) Saturation and inability to assimilate.

(4) Lack of ability to read and study effectively; parrot-learning.

(5) Lack of Originality.

and more generally—

(6) Retardation of boys in their progress and premature elimination of boys from schools.

It is remarkable that in spite of these evils, so generally known and so obvious to those who have first-hand experience that the multiplication of further evidence would be superfluous, the witnesses before the Calcutta University Commission are so evenly balanced. We can explain this only by supposing that not all the witnesses were thinking of the same thing and a detailed examination of the evidence confirms this supposition.

The use of the Foreign Medium in the Examination.

There are four aspects from which the foreign medium may be considered: the Examination, the Discussion, the Lecture, the Text.

The motives for having the examination in a foreign medium are:

(1) That the foreign tongue is the natural vehicle for the ideas concerned.

(2) That the examination may act as a test of proficiency in that language.

(3) The establishment of inter-provincial and international standards.

¹ Calcutta University Commission's Report, Volume X, page 439. See also Whitehead, Right Rev. H., "Indian Problems", 1924, Chapter X.

² Loram, C. T., "Education of the South African Native" 1917, pages 123-21.

³ Williams, J. G., "Mother Tongue and Other Tongues", 1915, page 10.

⁴ Op. cit., pages 221-223.

⁵ Imperial Education Conference, 1911, page 254.

⁶ Op. cit.

⁷ Skelton, O. D., "The Language Issue in Canada", 1917, page 6.

⁸ Modern Review, Jan. 1918 (XXIII, No. 1). See also Saer, D. J. Smith, F., and Hughes, J. The Bilingual Problem, 1924, page 58.

As regards the first point, in its application to the school in order to discuss an advanced scientific topic, it might be more convenient to use English, for the Vernacular would be so inter-larded with imported words as to present a grotesque appearance; on the other hand, any advanced worker would presumably be a man of more than average ability and would consequently be fairly well conversant with English. At any lower stage where the ideas are more simple, it is possible or even probable that, with the aid of a few imported words the ideas could quite readily be expressed in the Vernacular. As regards the second point, namely, that the examination should act as a test of language, it is a fundamental of examination theory that one thing at a time should be tested. It is not possible to estimate accurately the mathematical progress of the schools in Bengal if boys are to be marked wrong for mis-spelled correct answers. Not that this is actually done; on the contrary the examiners, as far as possible, tend to neglect the English, in a paper which is not itself specifically a test of English, so long as it is sufficiently intelligible. In so far as this is done the examination is valueless as a test of language; on the other hand, in so far as this is not done it is valueless as a test of the subject (Arithmetic, History, or whatever it may be).

It may however be argued that the value of examination in the foreign medium consists in the fact that it encourages the use of the medium in school work. Yet this argument is not valid since the school adopts the same system as the examination, namely that of accepting right facts in wrong language; thus in both cases the effect is to encourage the boy to write incorrectly, and to furnish him with practice in the art of doing so.

As regards the third point, establishment of inter-provincial and international standards, so long as the foreign medium is not perfectly known by the examinees, an examination can be better standardised inter-provincially in the Vernacular medium. A matriculation stage comparison of Bengal and the Punjab in respect of History by means of an examination answered in English must necessarily yield an impure score: the mark 50 might mean knowledge of half the facts and ability to express them, or the knowledge of all the facts and ability to express half. It is only in the higher stages where the language has ceased to be any obstacle that an examination in a foreign medium can be used for this purpose.

The use of the Foreign Medium in Oral class work—by the Boys.

The motive in requiring the boy to answer orally in class in the foreign tongue is to give him practice in speaking. It is however, to be noted that since in the Calcutta Matriculation there is no test of ability to speak English there is no special examination reason for the practice. From the practical point of view it is often advantageous for a boy, especially in the middle-class occupations, to be able to speak English—though his occasions for speech would not ordinarily involve the vocabulary of school subjects. But we may here also join Mr. J. A. Richter in considering this use of the foreign medium more likely to produce wrong habits of speech than to give useful practice, since as has been shown above it is not possible for a teacher to reject the right answer wrongly expressed; and thus wrong methods of expression are practised and encouraged.

Not only is the employment of a foreign medium in oral class-work useless for the purpose for which it is intended, but it is actually detrimental in other respects. O'Shea reminds us that by making a child speak in an unfamiliar language we set him back to the stage of infancy. "Let any adult attempt to express himself upon any familiar subject in a foreign tongue of which he is not thoughtful master, and he will show some such confusion and inhibition as does the child who is just beginning his work in composition." The baby's lack of thought is as much due to lack of speech—that is lack of the implement of thought—as to lack of thinking power. The foreign medium prevents a boy from thinking freely; and not in a few cases it makes it impossible for him to think at all.

¹ Calcutta University Commission's Report, Volume X, page 450.

² O'Shea, M. V., "Linguistic Development in Education", 1907, page 206.

The use of the Foreign Medium in Oral Class Work—by the Teacher.

The use of the foreign medium by the teacher has the advantage of accustoming the boy to the sound of the foreign language. In schools the use of the foreign medium by the teacher in his discourse is not, as in the University, a matter of actual necessity, but it is perhaps used with the idea of giving practice in following instruction in the foreign medium to those boys who will go on to the University, and of giving a training to all in the understanding of English speech.

By making the boy speak and write in the foreign medium actual harm may be done by encouraging wrong habits of speech and writing: by making the boy listen to teaching delivered in English, there is no such likelihood of harm save in so far as the speech of the teacher is incorrect. The evils, rather in the loss of time, and in the pupil's imperfect grasp of the ideas presented.

It is possible to make some experimental estimate of the amount of loss in efficiency of a lesson, owing to the employment of a foreign medium by teacher in his exposition. No absolute figure is of course possible since the effect of the foreign medium must necessarily vary according to the proficiency of the class in the foreign language, the nature of the lesson which is being taught, and the skill of the teacher. We may, however, select a class, subject and teacher which are all exceptionally favourable to the foreign medium, and endeavour to discover what is the minimum amount of loss under these exceptionally favourable conditions.

For the school, the best Government school in the town was selected; for the class, the pre-matriculation class, and for teacher, the Professor of Educational Method, of the Training College. For subject, some topic was required which would offer no difficulty as to idea or as to vocabulary, but which would be unfamiliar to the class, since otherwise any measure of the ideas obtained by the class from the lesson would be vitiated by the possibility of previous knowledge being employed in answering the questions. The subject selected was "Civics". It was found that the net loss in the efficiency of the lesson due to the use of the foreign medium by the teacher (the conditions as to class, subject and teacher being ideal) amounts to 20.6 per cent.

A loss of this magnitude under such ideal conditions is a serious matter. In the case of a boy who is going to the University the necessary practice in listening to lectures could probably be given more effectively in a special class at the Intermediate stage when the art of *precis* might simultaneously be taught. In the case of others specific practice in conversation on ordinary matters involving an "everyday" vocabulary would be more effective as well as more economical for producing speech and hearing ability in those cases in which these abilities are actually acquired.

The Foreign Medium in the Text-book.

The case is very different with regard to the English text-books in Bengal. There is no apparent evil unless it be a loss in point of speed of study and an increase in fatigue. It is certainly not legitimate to attribute "parrot-learning" to the use of foreign text-books apart from the foreign medium in oral and written work, in the class and in the examination. The boy learns by heart because he has to reproduce not only the ideas but also the expression: abolish the English medium in class-answers and in the examination, and the motive for learning by heart no longer exists. It is much easier to memorise ideas than the actual words in which they are conveyed, and if the foreign words have not to be reproduced there is no reason for memorising them. On the contrary, the use of a text-book written in a foreign language is likely to be a preventive of "parrot-learning," if the examination is in the Vernacular, since the actual words of the text-book cannot be used in the examination; they must be translated in the mother-tongue and, in this process, must necessarily be analysed and observed as ideas.

The absence of Vernacular texts is an argument frequently used against the Vernacular medium. It is for the above reason a weak argument, for it is possible to lecture in the mother-tongue, to require the boys' answers in the mother-tongue and yet have the text-book in English.

Summary.

The disadvantages of bilingualism are inherent rather in the use of the foreign medium than in the bilingualism itself. The foreign medium is not a necessary part of bilingualism; on the contrary it is both unnecessary and actually undesirable even for the purposes for which it is advocated (namely improvement of foreign speech and writing ability). As regards the foreign medium in respect of the language of the text-book the case is different. No actual disadvantages arise from this as regards production of inaccuracy of diction, parrot-learning and the like. There is at the maximum, a loss of ten per cent. per annum of the time allotted to the subject.

In short, if a child's education is bilingual in its receptive aspect but unilingual in its expressive aspect, bilingualism is not necessarily a handicap

Publications of the Bureau of Education, India.

Quinquennial Reviews.

Progress of Education in India—

- 1892-93 to 1896-97. Third Quinquennial Review. By J. S. Cotton. Rs. 3.
 1897-98 to 1901-02. Fourth Quinquennial Review. By R. Nathan, C.I.E.
 2 Vols. Rs. 7.
 1902-7. Fifth Quinquennial Review. By H. W. Orange, C.I.E. 2 Vols.
 Rs. 5-8-0.
 1907-12. Sixth Quinquennial Review. By H. Sharp, C.I.E. Vol. I,
 Rs. 4-5; Vol. II, Rs. 2.
 1912-17. Seventh Quinquennial Review. By H. Sharp, C.S.I., C.I.E.
 Vol. I, Rs. 3-10; Vol. II, Rs. 2.
 1917-22. Eighth Quinquennial Review. By J. A. Richey, C.I.E. Vol. I,
 Rs. 1-6; Vol. II, Rs. 1-4.
 1922-27. Ninth Quinquennial Review. By R. Littlehailes, C.I.E. Vol.
 I, Rs. 1-10; Vol. II, Rs. 2-10.

Miscellaneous Reports.

- Report on the Conference on the Education of the Domiciled Community in
 India, July 1912 (1912). Rs. 1.
 Report on the enquiry to bring Technical Institutions into closer touch and
 more practical relations with the employers of Labour in India. By
 Lieutenant-Colonel E. H. deV. Atkinson, R.E., and T. S. Dawson (1912).
 As. 10.
 Papers regarding the Educational Conference, Allahabad, February, 1911
 (1911). Rs. 1-8-0.
 The essentials of a University in a Great Centre of Population (1917). As. 6.

Annual Narratives.

Education in India—

- 1913-14. Rs. 1-8-0.
 1914-15. Rs. 2.
 1915-16. As. 8.
 1917-18. As. 12.
 1918-19. Rs. 1-8-0.
 1919-20. Rs. 2-2-0.
 1920-21. Rs. 1-8-0.
 1922-23. As. 8.
 1923-24. As. 14.
 1924-25. Rs. 1-6-0.
 1925-26. As. 10.
 1927-28. Rs. 1-12-0.
 1928-29. As. 14.
 1929-30. Rs. 1-8-0.
 1930-31. (In the press.)

Occasional Reports.

- No. 1. Rural Schools in the Central Provinces. By H. Sharp (1904). Rs. 1.
 No. 2. Vernacular Reading Books in the Bombay Presidency. By J. G.
 Coverton (1909). (Out of print.)
 No. 3. The Educational System of Japan. By W. H. Sharp (1906). (Out
 of print.)
 No. 4. Furlough Studies. By J. Nelson Fraser, H. Sharp and G. W. Kuchler
 (1909). Rs. 2.
 No. 5. Training of Secondary Teachers. By H. R. James, H. Sharp and
 J. Nelson Fraser (1909). As. 8.
 No. 6. Educational Buildings in India (1911). Rs. 5.
 No. 7. Methods of School Inspection in England. By H. G. Wyatt (1917).
 As. 8.
 No. 8. The Training of Teachers. By H. S. Duncan and A. H. Mackenzie
 (1918). As. 8.
 No. 9. The Planning and Fitting up of School Laboratories. By W. C. S. A.
 Rao (1921). Rs. 1-4-0.
 No. 10. Adult Education in England and Wales. By J. P. Bulkley (1922).
 As. 8.
 No. 11. Rural School Teachers in the United States of America. By H. G.
 Wyatt, I.E.S. (1923). As. 8.
 No. 12. Grant-in-aid to Schools in British India. By J. A. Richey, C.I.E.
 (1923). As. 10.

- No. 13. Bilingualism (with special reference to Bengal). By M. P. West, I.E.S. (1927). Rs. 2-4-0.
 No. 14. Some Experiments in Indian Education (1927). Rs. 1-8-0.
 No. 15. Rural Education in England and the Punjab. By R. Sanderson, M.A., I.E.S., and J. E. Parkinson, M.A., I.E.S. (1928). Rs. 1-4-0.

Bureau of Education Pamphlets.

- No. 1. Drawing and Manual Training in Punjab Schools. By J. Y. Buchanan (1918). As. 8.
 No. 2. Education of Factory Children in India (1918). As. 8.
 No. 3. Extracts from the Report of the Committee appointed by the Prime Minister to enquire into the position of Natural Science in the Educational System of Great Britain (1918). As. 4.
 No. 4. Extracts from the Report of the Commissioner of Education, Washington, 1916, regarding Vocational Education (1918). Reprint, 1927. Rs. 1-2.
 No. 5. Notes on Vernacular Education in Ceylon. By H. Sharp, C.S.I., C.I.E. (1919). As. 12.
 No. 6. Indian State Scholarships (1919). As. 12.
 No. 7. Facilities for Indian Students in America and Japan. By R. K. Sorabji, M.A., Bar-at-Law (1920). As. 2.
 No. 8. Libraries in Indian High Schools. By L. T. Watkins, M.A., I.E.S. (1920). (Out of print.)
 No. 9. State Examinations in Scottish Schools. By A. H. Mackenzie, M.A. (1921). As. 5.
 No. 10. Visual Instruction in Baroda. By D. Swarkar, I.O.E. (1921). One anna.
 No. 11. Education at Jamshedpur. By G. E. Fawcus, M.A., and M. D. Madan, M.L.O. (1921). One anna.
 No. 12. Science Teaching in England. By H. Banister (1922). As. 7.
 No. 13. Question Papers set for the Indian (Imperial) Police Examination (1921). As. 8.
 No. 14. Question Papers set for the Indian (Imperial) Police Examination (1922). As. 8.
 No. 15. Provisional Series of Mental Intelligence Tests for Indian Scholars. By J. A. Richey, C.I.E. (1924). (Superseded by Pamphlet No. 28.)
 No. 16. Impressions of the Imperial Education Conference, 1923. By F. R. Tomlinson, M.A., I.E.S. (1924). As. 2.
 No. 17. Question Papers set for the Indian (Imperial) Police Examination (1923). As. 8.
 No. 18. Conference of Indian Universities (1924). As. 7.
 No. 19. Question Papers set for the Indian (Imperial) Police Service Examination (1924). As. 9.
 No. 20. Question Papers set for the Chiefs' Colleges Diploma and Higher Diploma Examinations, 1921-25. Rs. 5.
 No. 21. Question Papers set for the Indian (Imperial) Police Service Examination (1925). As. 8.
 No. 22. Question Papers set for the Chiefs' Colleges Diploma and Higher Diploma Examinations (1926). Rs. 3-12-0.
 No. 23. Conference of Educational Administrators in India (1927). As. 14.
 No. 24. Notes on Garden Work in a Village Primary School. By A. O. Dobbs and Rai Sahib S. N. Sin (1927). As. 7.
 No. 25. Experiments in Primary Education in the Orissa Feudatory States. By H. Dippie, M.A., D.S.O., I.E.S. (1928). Reprint, 1930. As. 4.
 No. 26. Note on Education at Jamshedpur in Bihar and Orissa. By G. E. Fawcus, M.A., C.I.E., G.B.E. (1930). As. 8.
 No. 27. Question Papers set for the Chiefs' Colleges Diploma and Higher Diploma Examinations, 1927-1929. Rs. 2-8-0.
 No. 28. Revised Series of Mental Intelligence Tests for Indian Scholars (1930). As. 7.
 No. 29. Question Papers set for the Chiefs' Colleges Diploma and Higher Diploma Examinations, 1930-31. Rs. 3-4-0.

Records Series.

- Selections from Educational Records, Part I. By H. Sharp, C.S.I., C.I.E. (1920). Rs. 2-8-0.
 Selections from Educational Records, Part II. By J. A. Richey, C.I.E. (1922). Rs. 6-8-0.

To be had from the Manager, Government of India Central Publication Branch, Imperial Secretariat Building, 3, Government Place West, Calcutta, or any of his agents (vide list on back of title page).

